FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

NOVEMBER, 1957

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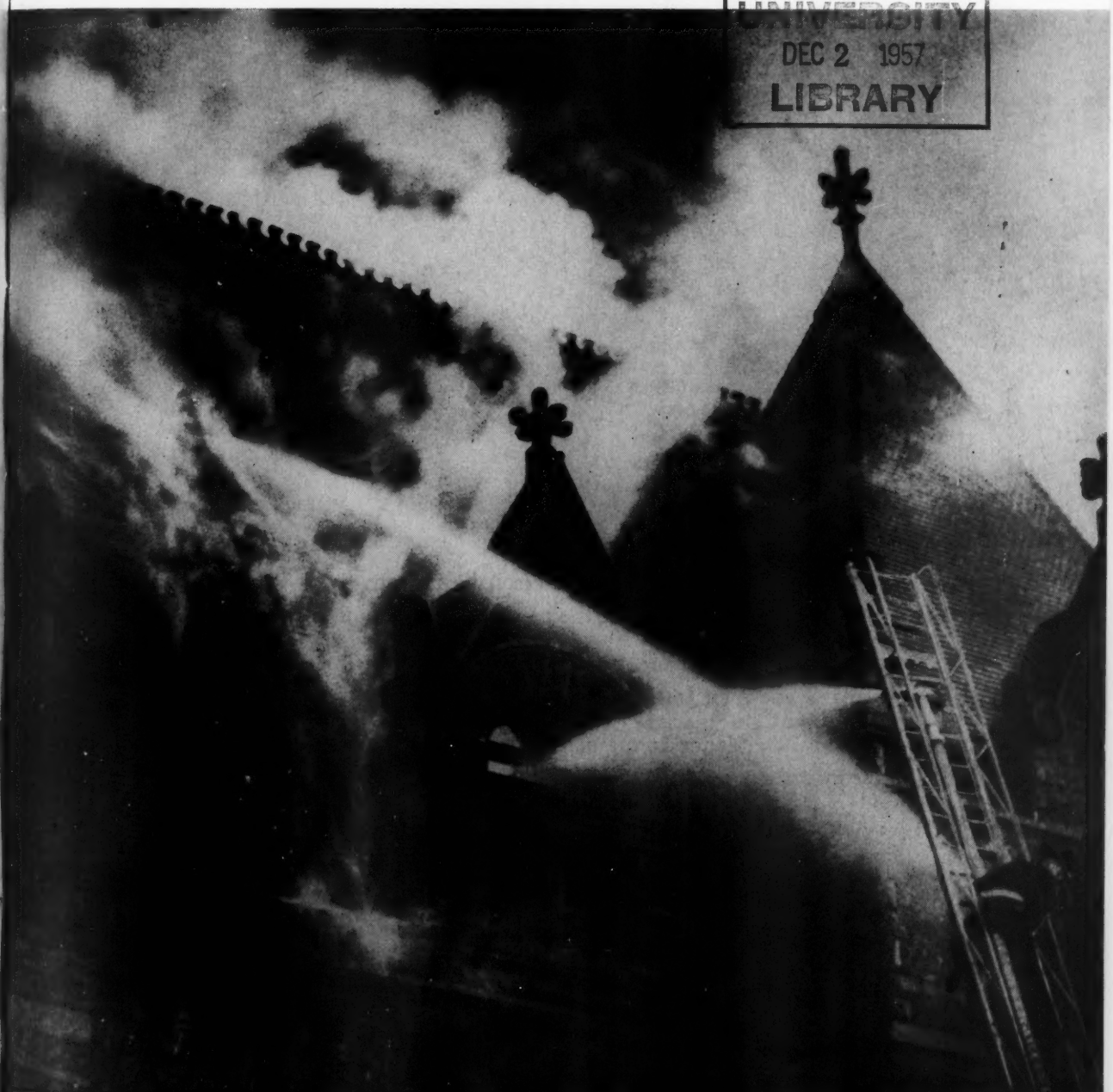
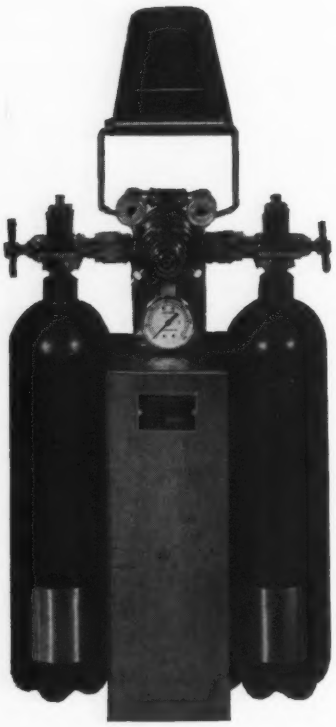


FAST ATTACK and salvage operations held Cincinnati City Hall fire loss (uninsured) to minimum. Here, second of two streams opens up from one of fire department's longest aerials—story on Page 1116

New!

EMERSON Resuscitator

Ambulance Model



For easy carrying pick up the new Emerson by its convenient handle. For the transporting of a patient in a vehicle, support the resuscitator in its bracket, as shown.

The stainless steel compartment between the tanks keeps masks, mechanism, aspirator, and airways available and safe.

An Emerson Resuscitator is rugged and dependable. The mechanism is large enough to hold its pressure settings, and is exceptionally economical of oxygen.

It is simple to operate.

In breathing emergencies you can count on an Emerson to help you save lives.

J. H. EMERSON COMPANY

22 COTTAGE PARK AVENUE, CAMBRIDGE 40, MASSACHUSETTS, U. S. A.

DEMAND

When you buy new fire apparatus you demand certain vital features. When you know the quality and capacity you need, do not request but demand that these specifications be met!

In these times of severe competition manufacturers tend to promote or substitute items that can be furnished at less cost than what is specified.

In the mass of equipment on a modern truck it's easy to overlook something — don't make this mistake with sirens and lights on your new truck.

Demand a FEDERAL CLASS Q Coaster Siren and a FEDERAL Beacon Ray Light!

Lives and the investment in your apparatus depend on the protection provided by better signals.

Demand the best — insist on FEDERAL SIGNALS!

Include FEDERAL in your specifications and permit no substitutes.

FEDERAL SIGN and SIGNAL Corporation

Write for catalog No. 300 today!

FIRE ENGINEERING

VOL. 110 NOVEMBER, 1957 NO. 11

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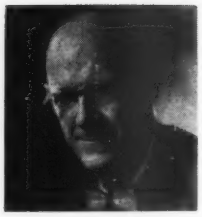

With F. E.'s Correspondents

Contributor Dale Auck might be well termed "committeeman extraordinary." We know of eight committees of the NFPA alone upon which he serves. He's also on the Board of Directors (NFPA 1957-60) and the Qualification Board of the Society of Fire Protection Engineers.

Dale's a "demon joiner" holding membership in at least ten leading groups in the fire protection, insurance and safety fields—which means he gets around.

When Dale Auck writes about a thing, he's talking about something he knows. His acquaintanceship with the field of fire protection and prevention dates back to 1926 when he inspected Ohio property for the Ohio Inspection Bureau. He got a further education while serving with the USAAF Headquarters, Air Materiel Command, Wright-Patterson Field, Ohio, supervising fire protection of 2,500 major U. S. industries making materiel for the Army Air Force. Two years with National Cash Register as fire marshal, etc., added to his experience and stature.

Since 1949, Dale has been director of the fire protection division, Federation of Mutual Fire Insurance Companies, Chicago, as researcher, consultant, student, reporter, etc. In between times, he scribbles for FIRE ENGINEERING, addresses meetings, attends conferences and sometimes gets home for weekends.

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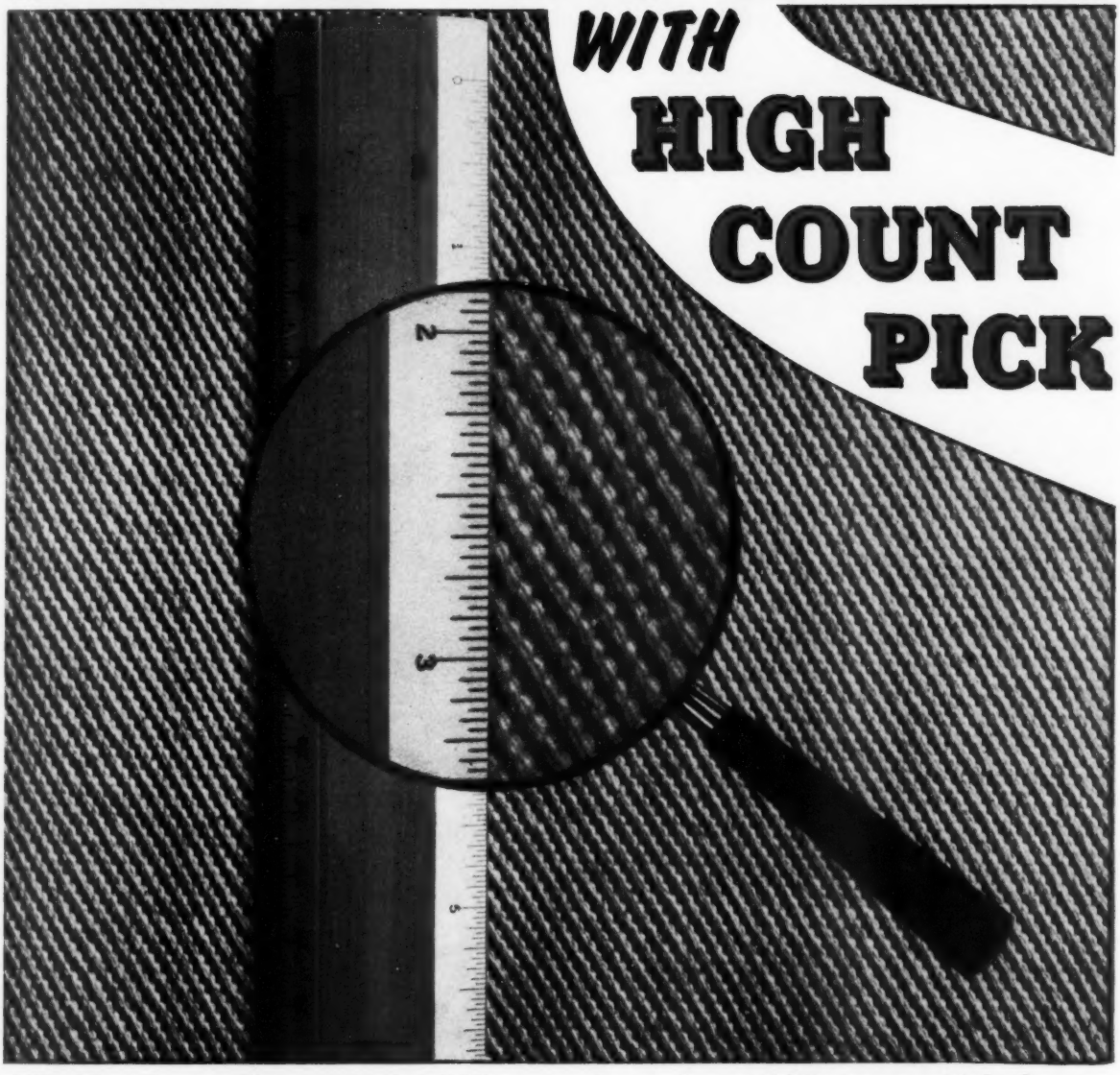
FABRILON

WITH HIGH COUNT PICK



"*Pick*" is the number per inch of filler strands, or those which go *around* the hose. FABRILON has the remarkably high pick count of 12 to 14 per inch. In FABRILON, high pick count means *closely woven twill jackets* which *resist abrasion and snagging* and slide over obstacles with *minimum surface friction.* It also means *smooth texture, ease of handling, high burst* and resistance to *pressure shock* or *water hammer.*

FABRIC FIRE HOSE COMPANY

THE ONLY EXCLUSIVE MANUFACTURER OF FIRE HOSE IN AMERICA

SANDY HOOK CONNECTICUT

IN CANADA *Pierre Thibault* CANADA, LTD., LTEE., PIERREVILLE, QUEBEC

FROST-PROOF DESIGN

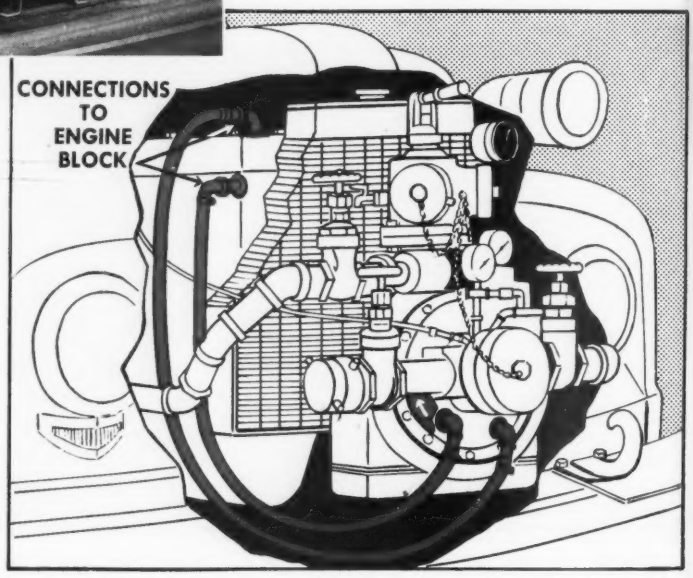
of Barton-American Type UA Front Mounted Fire Pump gives extra safety factor for winter operation

You *never* have to worry about your Barton-American Type UA Pump freezing! For this unique, effective *frost-proof design* gives you positive operation even in the coldest weather!

Water at engine temperature constantly circulates from engine cooling system through the cored suction head of the UA Pump. Even at sub-zero temperatures, this always keeps the pump well above the freezing point.

It's a closed system with no possible loss of radiator water or anti-freeze . . . operating on the same principle as a car heater.

In addition this feature of the UA Pump increases the summer cooling capacity of the system . . . gives you a cooler engine in hot weather as well as positive protection against freezing in cold weather!



Hose line circuit may vary with make of engine.

ONLY THE BARTON-AMERICAN TYPE UA PUMP GIVES YOU ALL THESE VALUABLE FEATURES:

- Is Easy to Install
- Fights Fires on the Move
- Gives Pressure to 400 lbs.
- Better Weight Distribution on Truck
- Gives You Unusual Economy
- Lets You Carry More Water or Equipment
- Effective Frost-Proof Design
- Both Volume and High-Pressure Fog Stream
- Positive Non-Slip Clutch

WRITE TODAY FOR UA PUMP BULLETIN NO. 8330-B

★ AMERICAN ★
FIRE PUMP COMPANY

AMERICAN FIRE PUMP COMPANY • P. O. BOX 219 • 803 MAIN STREET ROAD • BATTLE CREEK, MICHIGAN

B.F.Goodrich report:

They get a head start on fires with lighter, easier-handling hose

THAT B.F.Goodrich hose goes into action seconds after the truck arrives. For this head start on fires, Plainview, N. Y. Volunteer Fire Department uses lightweight, easy-to-handle B.F.Goodrich Fire King hose.

Fire King is 22% lighter, much more flexible than ordinary hose. As a result, it gets into action faster, handles easier during the fire, and saves loading time afterward because it racks naturally on the truck bed.

The lightness and flexibility of this hose comes from the Dacron chemically-produced fiber used as "filler cords" which go around the hose and carry the load under pressure. These cords are thinner, yet stronger than cords used for reinforcement on heavier, bulkier hose. Fire King is tested to 600 pounds pressure and can stand up to twice as much pressure without bursting.

Another important safety factor in this hose is its Superseal protection. This exclusive B.F.Goodrich treatment gives 10 times more resistance to mildew and rotting. Unlike ordinary treatments, which just coat the surface, Superseal penetrates every cord in the inner and outer jacket, prepares the hose for all sorts of weather.

When you want hose that's light, flexible, and will last longer than any other hose sold, get B.F.Goodrich hose with Superseal protection. Your B.F.Goodrich fire hose distributor can tell you more about it, or write *B.F.Goodrich Industrial Products Co., Dept. M-175, Akron 18, Ohio.*

B.F.Goodrich

INDUSTRIAL PRODUCTS

GENERATED OXYGEN

you get your choice of

Replaceable Chemox canister with oxygen evolving chemical.

M-S-A CHEMOX®

The M-S-A Chemox Oxygen Breathing Apparatus employs a replaceable chemical canister (which can be stored indefinitely) to generate oxygen for the user. Moisture from the user's breath starts continuous oxygen supply. All the user does is breathe—the Chemox does the rest.

This complete respiratory protection prevails for a minimum of 45 minutes for close range fire-fighting in unbreathable or oxygen deficient atmospheres. This has been demonstrated by the U. S. Bureau of Mines tests and confirmed by actual service.

The Chemox is comfortable to wear and can be put on in seconds. Weight of the Chemox is only 13½ pounds. Its Cleartone Speaking Diaphragm permits easy conversation between fire fighters. Lenses are fog-free. We'd be happy to supply you with more details. Write us for further information.

CYLINDER AIR OR OXYGEN

breathing protection from MSA

40 cu. ft. capacity cylinder available with air or oxygen.

M-S-A® AIR MASK

The M-S-A Air Mask comes with a demand regulator and All-Vision facepiece to provide the fire-fighter with a simple, efficient, easy-to-use safeguard for breathing under all respiratory conditions.

Air or oxygen is supplied in exact accordance with breathing needs. During exhalation, flow ceases. This is an economy measure that greatly lengthens service life. Weight of the M-S-A Air Mask is only 30 pounds complete. You can place it in operation in a few seconds. And it's well-balanced, comfortable to wear.

With the harness fastened, the wearer simply opens the cylinder valve, adjusts the facepiece, and breathes normally. The demand regulator delivers automatically the desired flow. A by-pass valve can be opened to permit controlled flow from the cylinder to the mask. Write us for further information.

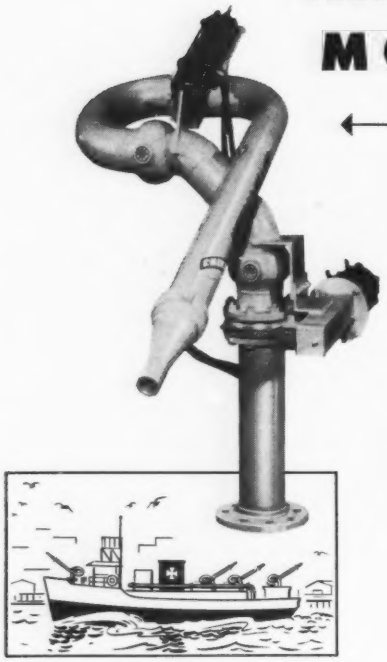
MSA
SAFETY EQUIPMENT HEADQUARTERS

Call the MSA man on your every safety problem. His job is to help you.

MINE SAFETY APPLIANCES COMPANY
201 North Braddock Avenue
Pittsburgh 8, Pennsylvania

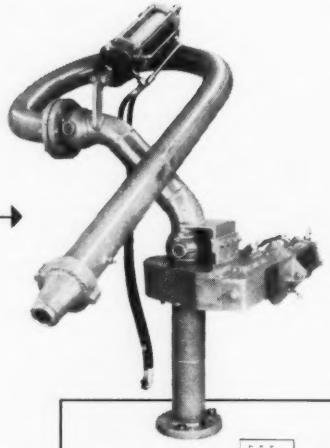
NOW... CHIKSAN OFFERS YOU A COMPLETE LINE OF MASTER STREAM

Intelli-Giant MONITORS

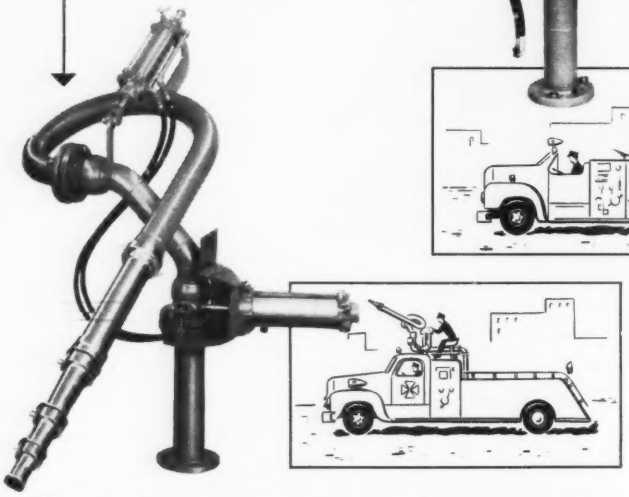


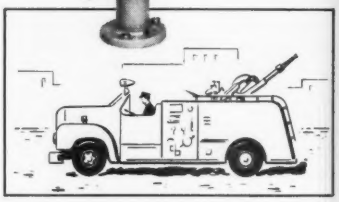
MODEL **C-6** (6")
Can deliver 3000 gpm/345 ft.

MODEL **C-4** (4")
Can deliver 2000 gpm/325 ft.

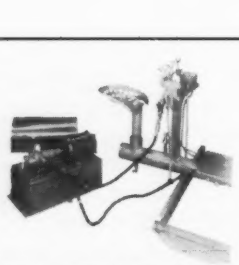


MODEL **D-3** (3")
Can deliver 1000 gpm/290 ft.





Whether fire suppression tactics dictate a powerful far-reaching master stream or a dense enveloping fog, there's a Chiksan Intelli-Giant with the proper capacity to meet individual requirements. Hydraulically controlled, these "giant deluge" monitors can be truck mounted for mobile use or situated as a fixed emplacement in hazardous areas with remote controls located at a safe vantage point. A closed circuit hydraulic system is available for operation in cold climates. Direction of monitor is controlled by two simple-to-operate levers. With all of its powerful striking force and high volume output, the savings achieved from effective suppression of just one fire can more than repay the cost of this monitor. Send for literature and prices today.



Hydraulic controls can draw power from source of stream, or a closed circuit system is available for operation in cold climates.

See "MODERN FIREFIGHTING". Write Chiksan, 300 No. Pomona Ave, Brea, California, to arrange a showing of this informative 16 mm movie.

CHIKSAN fmc A SUBSIDIARY OF FOOD MACHINERY AND CHEMICAL CORPORATION

CHIKSAN COMPANY–BREA, CALIFORNIA • CHICAGO 5, ILLINOIS • NEWARK 2, NEW JERSEY

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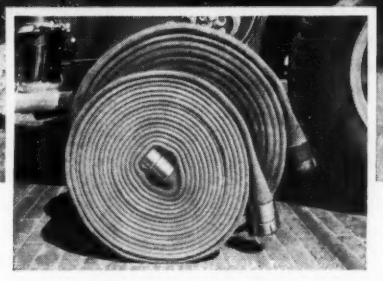


ENERGY HOSE, made with Dacron* filler cords, placed beside conventional hose illustrates the substantial saving in space which permits you to carry more hose on your trucks.

HAMILTON ENERGY FIRE HOSE—600 POUND TEST

Weighs 20% Less...takes 1/3 less space
Yet *Dacron** gives it 50% more strength

It's easier to carry up ladders because it weighs 20% less than conventional hose. Light weight and flexibility mean easy handling and folding. Hamilton's ENERGY Municipal Fire Hose with its smooth, slow aging, non-acid forming liner, reduces friction loss to a minimum, assures maximum pressure at the nozzle.

OVER 87 YEARS OF SERVICE TO INDUSTRY

ENERGY HOSE is also available with SEALCOTT "W"—a special water repellent and mildew treatment for effectively protecting every cord in the inner and outer jackets against mildew and rot.

Quality control assures the dependability of ENERGY HOSE. Write for full information on our complete line of fire fighting hose.

**Du Pont's trademark for its polyester fiber.*

HAMILTON RUBBER

MANUFACTURING CORPORATION • Trenton 3, N. J.

A Division of Acme-Hamilton Manufacturing Corporation

ATLANTA • CHICAGO • HOUSTON • PITTSBURGH • INDIANAPOLIS • LOS ANGELES • NEW YORK SAN FRANCISCO

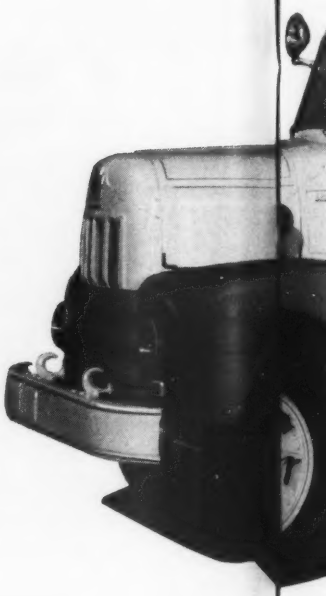
THE WORLD'S FASTEST ACTING,

with the 3-WAY PUNCH

of John BEAN

HIGH PRESSURE FOG

THE ORIGINAL HIGH PRESSURE FOG SYSTEM



John Bean's High Pressure Fog system is distinguished from all other fire-fighting methods by the microscopic size of the fog particles created by the original John Bean High Pressure Fog Pump and patented Fire-Fighter Gun operating at 850 PSI. When driven at high velocity to the base of a fire, these fog particles have many times the surface area and heat absorption power of a solid stream of water. So much so that . . .

ONE GALLON OF WATER AS HIGH PRESSURE FOG
HAS THE FIRE KILLING CAPACITY OF TEN
GALLONS DISCHARGED IN A CONVENTIONAL STREAM.

You can extinguish more than 95% of your fires faster . . . use only 10% of the water usually required . . . and do it with greater safety and with little or no water damage.

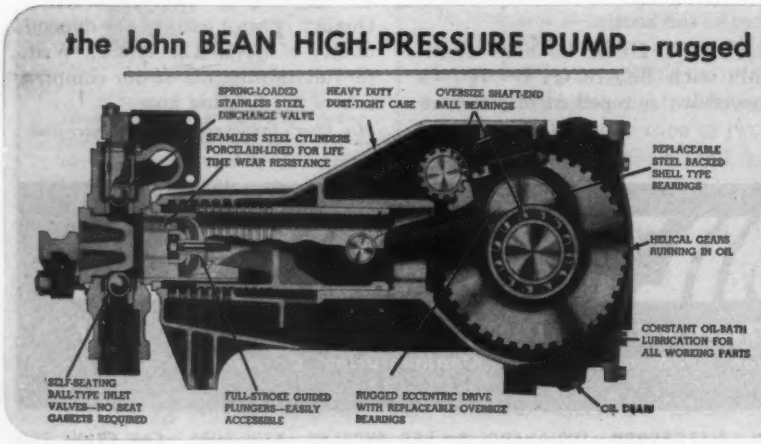
One of fire-fighting's greatest achievements . . .
the triple action of John Bean High Pressure Fog

1. **IT COOLS** – as it contacts a fire, John Bean High Pressure Fog instantaneously absorbs heat at the rate of 9,438 BTU per gallon of water (50°F). A single gallon of water, used this way at 100% efficiency, can absorb the heat equivalent to the output of 600 average home furnace fires.

2. **IT SMOTHERS** – by shutting off oxygen from the fire. As the super fine fog particles absorb heat, they expand 1,700 times to form a smothering blanket that displaces the combustion-supporting oxygen.

3. **IT ISOLATES** – by throwing a barrier of "cold steam" between the burning gases and their source of fuel.

the John BEAN HIGH-PRESSURE PUMP – rugged heart of HPF fire-fighters


SPRING-LOADED STAINLESS STEEL DISCHARGE VALVE
HEAVY DUTY DUST-TIGHT CASE
OVERSIZE SHAFT-END BALL BEARINGS
SEAMLESS STEEL CYLINDERS PORCELAIN-LINED FOR LIFE TIME WEAR RESISTANCE
REPLACEABLE STEEL BACKED SHELL TYPE BEARINGS
HELICAL GEARS RUNNING IN OIL
CONSTANT OIL-BATH LUBRICATION FOR ALL WORKING PARTS
SELF-SEATING BALL-TYPE INLET VALVES—NO SEAT GASKETS REQUIRED
FULL-STROKE GUIDED PLUNGERS—EASILY ACCESSIBLE
RUGGED ECCENTRIC DRIVE WITH REPLACEABLE OVERSIZE BEARINGS
OIL DRAIN

SELF-PRIMING PUMP OPERATES FROM TANK, HYDRANT, OR DRAFT SOURCE

HARDEST HITTING FIRE-FIGHTERS

STANDARDIZED FOR ECONOMY
John Bean Fire-Fighters mount on most standard truck chassis

Note the "PLUS VALUE" features of John BEAN HPF FIRE-FIGHTERS

INTERIZED
EL COMPARTMENTS

emovable enclosures winter- the two reel compartments. ese, as well as pump, valves, uges and controls, are rmed by engine heat.

OWER
EWIND HOSE REELS

ster, easier hose pick-up with wer operated reels. Hose ys out smoothly and easily er chrome-plated, vertical d horizontal roller guides.

0 FEET OF
GH-PRESSURE HOSE

e 200 feet of special, 3400 unds burst test hose on each el can be easily handled by e man.

20 FEET
OF SUCTION HOSE

Standard equipment includes two 10-foot lengths of 2½-inch hard suction hose, complete with hydrant adapters and suction screens.

LIGHTED CONTROL PANEL

All gauges, valves and controls are centralized for instant operation — illuminated for safety and easy reading at night.

OVER 45 CUBIC FEET OF WEATHERPROOF STORAGE SPACE

Five large capacity, lighted compartments are built in for proper storage of accessory equipment. Easy opening flush-type door latches.

POWER TAKE-OFF FOR IN-MOTION PUMPING

Pump is coupled to engine so that pump can be operated for fighting grass fires, etc., while truck is moving. Control for engaging pump is located conveniently in the cab.

500-GALLON SIX-COMPARTMENT TANK

Smooth cornering, starts and stops assured by six-compartment tank with low center of gravity. Prevents undesirable water surge.

When minutes count . . .
and you need instant action
. . . or when water's scarce . . .
YOU CAN DEPEND ON
John BEAN HIGH PRESSURE FOG

WRITE TODAY FOR COMPLETE DETAILS

JOHN BEAN (R) fmc FOOD MACHINERY AND CHEMICAL CORPORATION

Lansing 4, Michigan
Dept. 126

San Jose 1, California
P. O. Box 145

A Division of Food Machinery and Chemical Corp.

NEW MOTOROLA T-POWER 2-WAY RADIO

Transistorized Power Supply for both receiver and 25-watt transmitter

Long Life Transistors Replace the Vibrator . . .
Reduce Maintenance and "Down-Time"

Already famous for the lowest maintenance and operating costs in the 2-way mobile radio field, Motorola mobile radio is an even better investment now—with the T-POWER unit. The vibrator is gone! . . . replaced by rugged long-life transistors. Gone, too, is the problem of frequent vibrator replacement. Here is a mobile radio with an all-electronic power supply.

New Mounting Flexibility with Plug-In Control Head
. . . Same Basic Unit can be Used for Front or Trunk Mounting

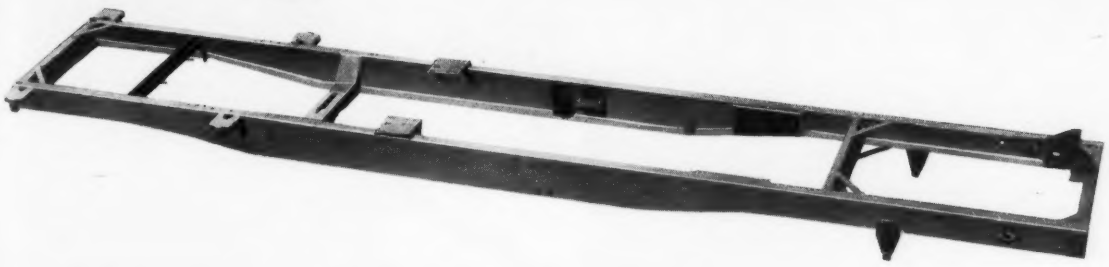
With the T-POWER radio, you are no longer restricted to one type of mounting. Install the complete radio, with drawer unit and plug-in control head, for under-dash mounting. For rear mounting the same basic drawer unit can be installed in the trunk and connected by cable to a dash-mounted control head. And—the same basic drawer unit can be interchanged with the equivalent Motorola Twin-V trunk mount radio models operated from a 12-volt negative ground source.

T-POWER radio is another example of Motorola's continuing leadership in the practical application of transistors in mobile radio. Other tested and proved transistorized products include the Dynamic Microphone and Power Voice Speaker.

Get all the facts.—Write now for literature with complete information.

MOTOROLA Communications & Electronics, Inc. · 4501 Augusta Blvd., Chicago 51, Illinois · A Subsidiary of Motorola Inc.

There's *Extra Value* in AMERICAN-LAFRANCE Fire Engines . .



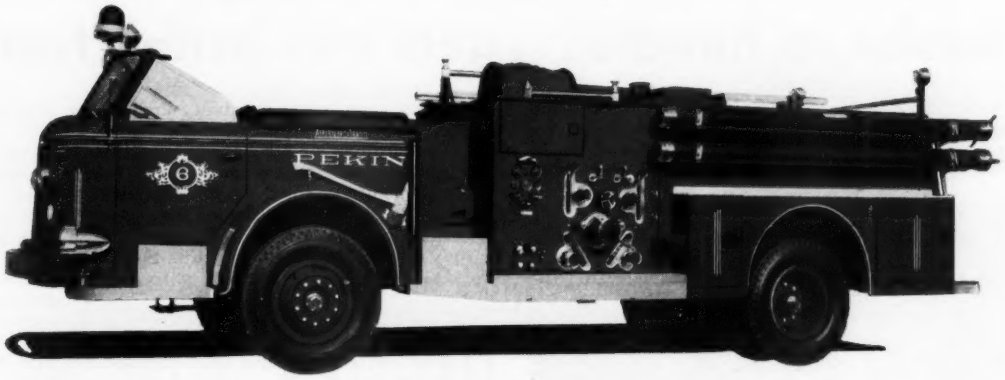
NEW, heavier chassis frame electric welded to provide maximum strength and stability

The new and heavier frame on Series 800 pumpers is a valuable feature for increased operating stability and safety. Better alignment is preserved for all operating units and less frame deflection on the roughest streets or highways.

The frame section between front and rear springs is 10½ inches deep with 2¾ inch flanges top and bottom and ¼ inch stock thickness. All cross members and stiffening gussets are also of ¼ inch stock. All members are joined by electric welding to the side members to provide a maximum of strength and torsional resistance. No rivets to loosen.

The increased section depth of the frame for greater stiffness and reduced deflection is one of the American LaFrance Extra Value features. This heavier frame is one of the Engineering developments in design to provide the fire service improved and dependable fire engines.

The frame material is high carbon steel without heat treatment. Heat treatment does not add to the stiffness, only permits a lighter section to deflect farther. Fire service experience has dictated the essential need for a frame of maximum stiffness and load carrying ability as now offered in American LaFrance Series 800 fire engines.



Sparton 1000 G.P.M. Class A Pumper

Sustaining Member, I.A.F.C.

AMERICAN LAFRANCE CORPORATION
ELMIRA, NEW YORK, U. S. A.

LAFRANCE FIRE ENGINE AND FOAMITE LIMITED
TORONTO, 9, ONTARIO, CANADA

MR. ROBERT C. BYRUS, Director of the University of Maryland Fire Service Extension Dept., reports: "We've had less failure with hose of 'Dacron' and cotton than with conventional hose used under the same rough training-ground conditions."

Hose made with DACRON is lighter and easier to handle . . . gets into action fast

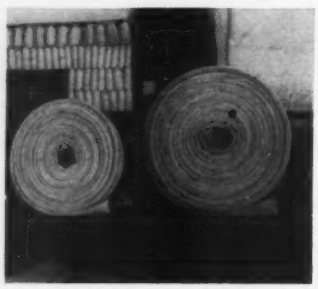
REG. U. S. PAT. OFF.

Fire hose gets extra rough use at the University of Maryland Fire School. Repeated training exercises simulate very severe conditions. That's why it's especially meaningful when the school's director reports, "Our tests show hose made with 'Dacron'* has better durability under these abusive conditions than does conventional hose."

Forward-looking fire departments throughout the country are using hose made with "Dacron" polyester fiber. They like the lightness and flexibility that make for easy handling. They like the speed in getting into action. Speed that lends itself to latest firefighting techniques . . . like those taught at the University of Maryland Fire School.

Du Pont makes "Dacron" yarn and supplies it to hose manufacturers. The combination of the unusual properties of "Dacron" plus hose manufacturers' skill has resulted in a superior type of fire hose. Hose made with Du Pont "Dacron" is produced by all leading fire-hose manufacturers. The next time *you* buy hose, be sure it's made with "Dacron". E. I. du Pont de Nemours & Co. (Inc.), Textile Fibers Dept., Wilmington 98, Delaware.

EASIER-TO-CARRY hose made with "Dacron" is preferred for handling where seconds count.



EASIER-TO-COIL hose made with "Dacron" (left) takes up less storage space . . . dries faster than conventional fire hose.

*"*Dacron" is Du Pont's registered trademark for its polyester fiber.*

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

FIRE HOSE MADE WITH "DACRON"—is easier to handle . . . gives improved performance . . . racks more compactly.

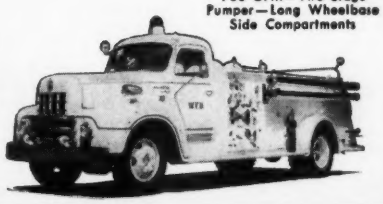
BOARDMAN PUMPERS

...engineered for YOUR Community!

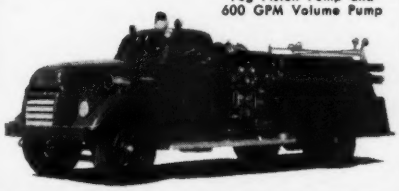
Your community deserves the best . . . and the best is a Boardman Pumper unit. Designed for any size city, Boardman Pumpers offer the most efficient, economical fire protection it is possible to buy. Equipped with dependable Waterous pumps, these units will give years of trouble-free service. Available with pump capacities of 200, 500, 600, 750 or 1,000 GPM. Your unit can be designed with special booster tanks, compartments, or equipment built to your specifications. Dependable . . . and economical, that's a Boardman Pumper. It can be mounted on the standard chassis of your choice or on a Boardman custom unit. Write today for complete information! Learn how your community can have economical Fire Protection with a Boardman Pumper unit.

They're efficient!
They're attractive!
They're economical!

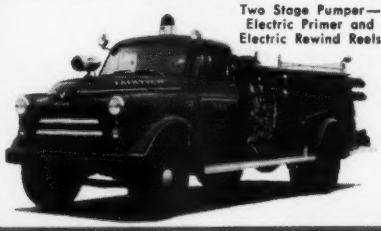
750 GPM—Two Stage Pumper—Long Wheelbase Side Compartments



Combination High Pressure Fog Piston Pump and 600 GPM Volume Pump



Two Stage Pumper—Electric Primer and Electric Rewind Reels



200 GPM Rural Unit Power Take-off Pump—500 Gal. Tank

750 GPM Custom Pumper 240 H. P. Dual Ignition Waukesha Engine

500 GPM Front Mount Pumper with 500 Gal. Tank

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THE BOARDMAN CO.
OKLAHOMA CITY
1401 SOUTHWEST 11TH

BRANCH OFFICE: TULSA, OKLAHOMA

MANUFACTURER OF DEPENDABLE PUMPERS AND TANKERS

In Marin County, California

Volunteer fire departments use two-way radio to team up for mutual aid

If disaster should strike tomorrow in Marin County, California, the entire fire-fighting resources of the county would be instantly mobilized by radio to meet the situation.

Here's how it works: County headquarters at San Rafael monitors all two-way radio calls made by fire departments in the county. Each fire department, in turn, monitors the San Rafael station. Communication is constant and immediate.

G-E radio means better fire protection

The volunteer fire departments at Alto and Novato are typical of those tied into this county-wide system. They find that General Electric two-way radio helps many ways in giving more efficient fire protection.

When all apparatus in one town must be dispatched to a fire, G-E two-way radio makes possible instant assignment of a neighboring fire department for back-up protection should a second fire break out. The station house can be called from the scene of the fire for help of any kind. And men out on inspection duty are always on tap, thanks to radio.

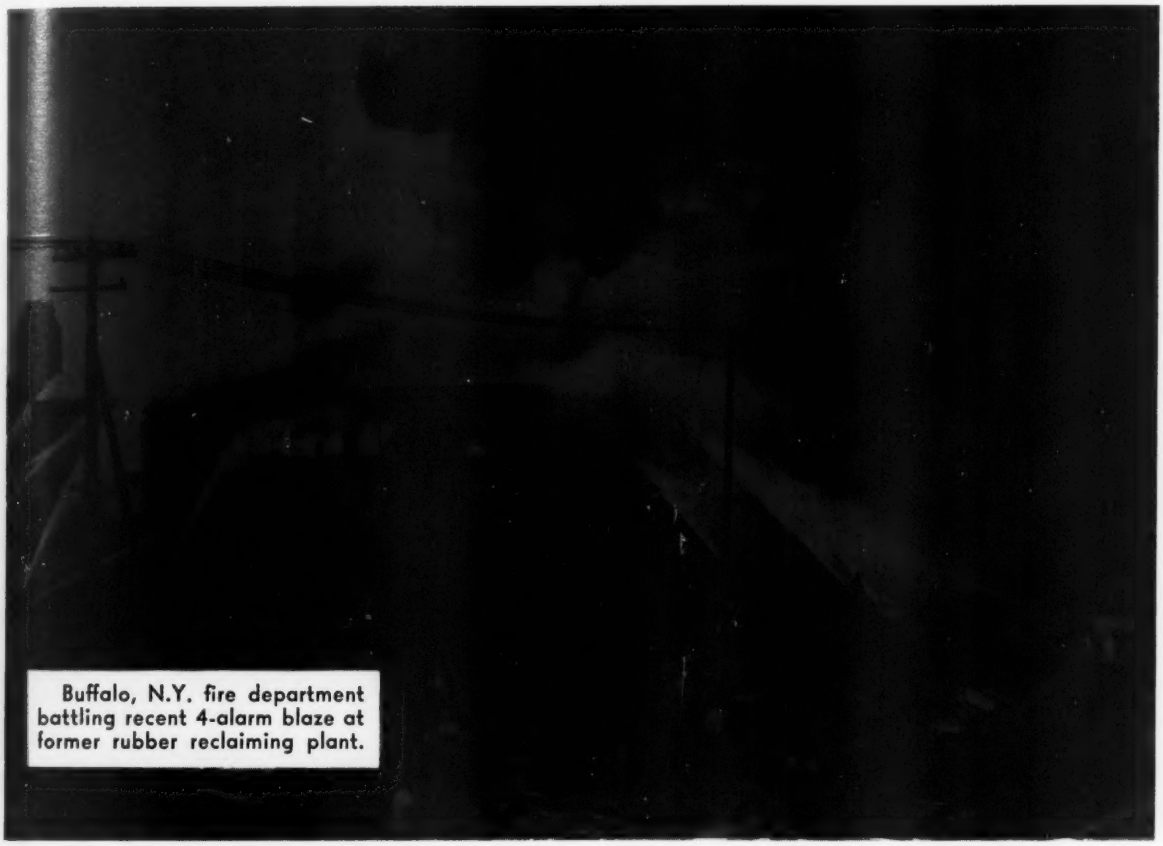
G-E gives taxpayers more for their money

Only General Electric's Progress Line gives you pre-tested, communication-type tubes; controlled reluctance microphones for clear voice transmission; and completely interchangeable plug-in chassis to cut service costs.

Find out how General Electric two-way radio may lower fire insurance rates in your town. Call your G-E Communication Consultant, listed under "Radio Communication Equipment" in the Yellow Pages. Or write: General Electric Co., Communication Products Dept., Section 12117, Syracuse, N. Y.

Progress Is Our Most Important Product

GENERAL ELECTRIC



Buffalo, N.Y. fire department battling recent 4-alarm blaze at former rubber reclaiming plant.

Photo by: R. L. Delaney, Buffalo Courier-Express

The toughest test of all . . .

No test can possibly duplicate actual fire-fighting conditions. Here, at the scene of a fire, is where your equipment faces its toughest test—a test Ward LaFrance apparatus has passed time after time. For over 39 years, these dependable pumpers have proved themselves in service, operating under the most severe conditions when demands on equipment are greatest. Today's new Ward LaFrance Pumpers —with their specially designed cabs and chassis with unusual safety features—uphold this great fire-fighting tradition. Get full details on 1957 Ward LaFrance models — write and request a representative to call on you.

WARD LaFRANCE
TRUCK CORPORATION

GENERAL OFFICE & FACTORY: Grand Central Ave., Elmira, N.Y. Tel. 3-5631 DIRECT FACTORY BRANCH 139th St., & Bruckner Blvd., New York 54, N.Y. Tel CYpress 2-3300 EXPORT: Ward LaFrance International, Inc., Elmira, N.Y., U.S.A. Cable Address: "Wardtruck"

FIRE APPARATUS MANUFACTURERS FOR OVER 39 YEARS

for power to spare
on the way... at the fire...

Specify

Leece-Neville ALTERNATOR SYSTEMS

the best generator equipment you can buy!

Two-way radios, sirens, warning lights, rescue equipment—all combine to place a heavy load on your apparatus batteries. More of a load than the batteries can handle—*unless* you've installed Leece-Neville alternator systems!

Because they produce charging current *as soon as the engine starts*...enough to handle two-way radio transmitting loads...Leece-Neville alternators keep batteries charged . . . ready for fast, sure emergency starts in coldest weather!

And, high speeds can't damage L-N alternators ...they're designed for operation up to 12,000 rpm! What's more, L-N constant voltage level control assures peak radio performance . . . lengthens life of radio components.

Leece-Neville alternators, the original ac-dc generating system, have been used since 1946 as standard generating equipment on hundreds of fire apparatus fleets, both large city and rural volunteer departments. On any type of apparatus, large or small, L-N alternators will set new standards of performance while reducing operating and maintenance expense. For all the facts, see your local L-N distributor or write direct to The Leece-Neville Company, Cleveland 3, Ohio. *Distributors in principal cities . . . service stations everywhere.*

plenty of 110 volt power, too!

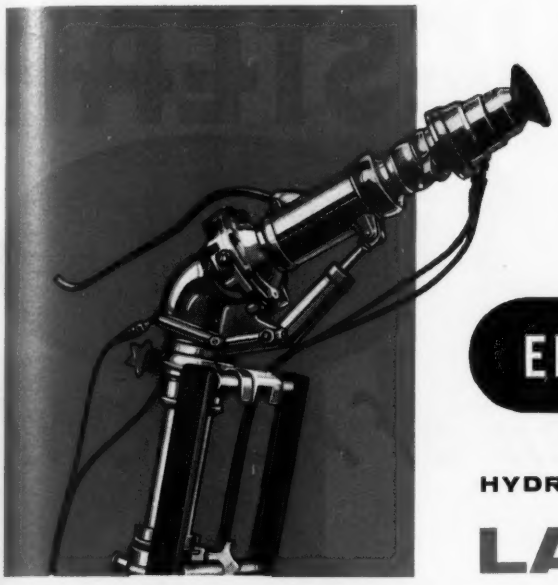
For abundant 110 volt power to operate floodlights, power tools, rescue equipment, etc., install a Leece-Neville 110 volt transformer and rectifier in conjunction with the alternator. Ask for special bulletin.

AA 6014

YOU CAN RELY ON Leece-Neville

Automotive Electrical Equipment Since 1909

TRUCK • BUS • DIESEL • INDUSTRIAL • PASSENGER • RAILROAD • MARINE • OFF-HIGHWAY



Announcing

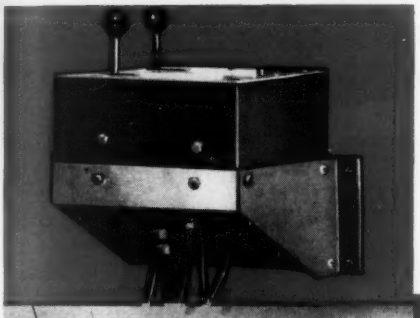
the

NEW

ELK-VOGT REMOTE

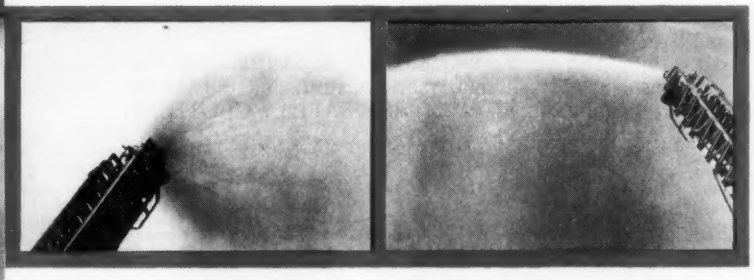
HYDRAULIC REMOTE CONTROLLED

LADDER PIPE



Right at the control box one operator *alone* can handle the complete job assigned to this new *Elk-Vogt Remote* Ladder Pipe unit. By moving the levers on the control box the operator can change the elevation of the ladder pipe and control the stream pattern. Four charged hydraulic lines from the control box lead to rams which in turn serve to raise or lower the pipe or change the stream pattern. The control box is portable and can be placed in a location that best meets the needs of the fire fighting job at hand. The unit is equipped with an Elkhart Mystery Fog Nozzle for choice of straight stream through all degrees of fog.

The Elk-Vogt Remote has a full 3½" waterway which practically eliminates friction loss in the ladder pipe. Hydraulically controlled Fog Nozzle is available in either 500 or 1000 G.P.M. To meet the National Board of Fire Underwriters' requirements the Elk-Vogt Remote ladder pipe can be operated manually.



The photographs above and at lower left were taken at a demonstration by the Memphis Fire Department and are used through the courtesy of Chief John C. Klinck. Note the fog pattern at the left and the straight stream at the right. Stream changes are selected and the pipe raised or lowered by the operation of levers on the control box. This control box is portable.

CHIEFS! Here are the winners of Elkhart's "Name The Nozzle Contest"

At the recent IAFC Conference in New Orleans we held a contest to name the new Remote Controlled Ladder Pipe unit. So that no personal names would appear on entry card we had each entry blank numbered. Check your card, Chiefs . . . here are the winners.

No. 344 (First prize a $100 U.S. Savings Bond.)
No. 32 (Second prize a $50.00 U.S. Savings Bond.)

Mail your card and name and address to us now. It's your prize.

ELKHART

BRASS MFG. CO., Inc.

ELKHART, INDIANA

More Than Half A Century of Fire Fighting Progress

MIDWESTERN

Safety Clothing

for Men of ACTION!

The Original MIDWESTERN
STRIPED SAFETY COAT
Reduces Accidents—Saves Lives

When working under hazardous conditions in smoke, fog, dust and darkness, you deserve the safety protection found *only* in the Midwestern Striped Safety Coat. The highly visible yellow stripes are *rubberized as part of the material* . . . not glued, painted or sewed on. Tests show that Midwestern yellow stripes retain their natural color and have the same durability as the black fabric.

There are many imitations but no substitute for the superior quality, design, fabric texture and outstanding safety features of MIDWESTERN SAFETY CLOTHING FOR FIREMEN!

MIDWESTERN COMBINATION SAFETY SUIT

The Midwestern Rubberized Coat and Bunker Pants combination make it easy for firemen to keep both warm and dry even in the most severe weather. Close fitting collar and elastic inner sleeve keep out sparks and water. Pants have double-stitched seams, reinforcing rivets at points of strain. Both garments available with detachable wool linings.

For complete information on our full line of safety clothing for firemen, see your Midwestern dealer. A letter to the factory will also bring you literature and materials for your inspection.

NONE GENUINE WITHOUT THIS TRADE MARK

MIDWESTERN SAFETY MFG. CO. Mackinaw, Illinois

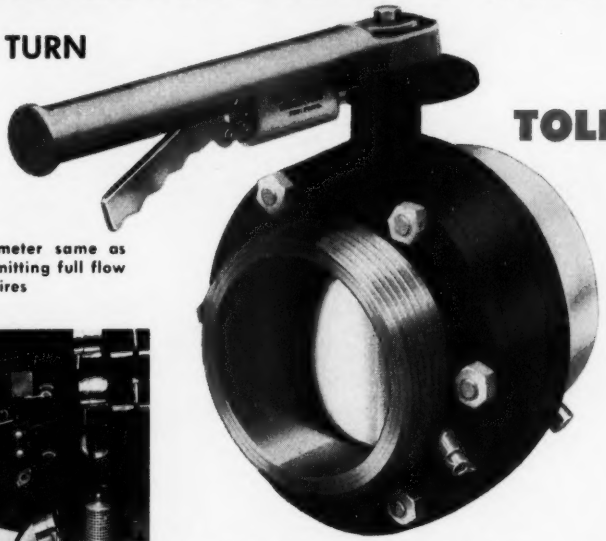
Manufacturers of the Famous **MACKINAW Safety Coats**

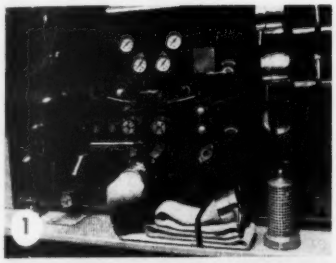
KEYSTONE HYDRANT VALVE *Story*

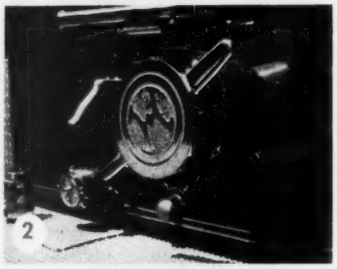
TOLD IN 10 PICTURES

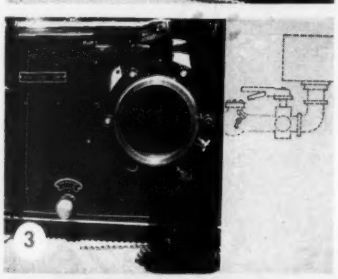
- **QUARTER TURN**
- **OPENS EASILY**

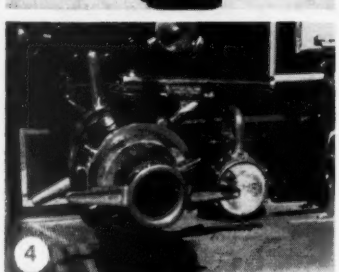
with opening diameter same as pump suction, permitting full flow of water at major fires

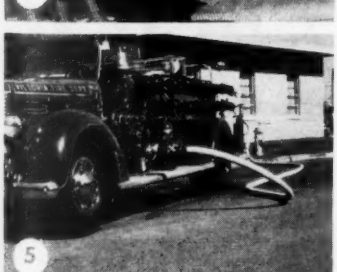












1 With the Keystone Hydrant Valve, a large suction hose can be carried attached to the pump suction with a wet pump permitting instant pumping of water on the fire truck and can be switched to hydrant water supply without stoppage of water, assuring complete safety at all fires. A connection of soft suction hose to the hydrant steamer becomes a one man operation with ease. (Not possible with 2½" valved suction)

2 The Keystone Hydrant Valve can be applied to old or new pumpers instantly and without any mechanical changes in pumper construction.

3 With the Keystone Hydrant Valve on pump suction, a swing check valve may be installed between the booster water tank and pump suction permitting tank suction to remain open at all times except when drafting water from rivers, creeks, etc. This feature makes operation of the pumper less difficult. (If the pump is carried wet (primed) and the 2½" valved suction is used, the swing check valve in line between the pump and tank would permit water to run out of booster water tank when attaching hose to the pump suction)

4 By applying a reduction hydrant adapter to a Keystone male thread will permit feeding pumper with 2½" fire hose. (This is also possible with the 2½" valved suction)

5 When using a reducing adapter on the male thread of a Keystone Hydrant Valve, the pumper can be fed direct from the 2½" outlet on the water hydrant with 2½" fire hose. (This can also be accomplished with the 2½" valved suction)

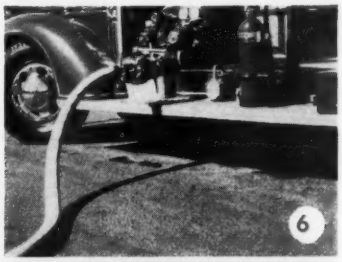
6 When using a reducer adapter on a Keystone male thread, the pumper can be fed through hundreds of feet of 2½" fire hose in relay from another pumper at a water hydrant or other source of water. (This is possible with the 2½" valved suction)

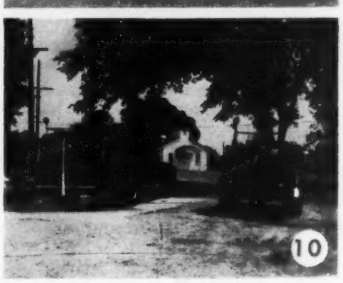
7 With an air bleeder on a Keystone Hydrant Valve, all air that is ahead of water in long hose lines can be bled from the hose before the valve is opened to relieve the shock on the pump and to prevent the stoppage of pumping. (This is possible with the 2½" valved suction)

8 Application of Keystone Hydrant Valve connected to steamer outlet will permit second truck to get hydrant connected instantly without water stoppage when operating from hydrant to fire, eliminating delay. (Not possible with a 2½" valved suction on truck)

9 For oil refineries, chemical and other industrial plants that have conventional cast hydrants with steamer connections, the Keystone Hydrant Valve can be attached to the hydrant steamer and early arrived crew can pump on fire with 2½" outlet on hydrant to cool tanks, etc., while awaiting arrival of foam or other pumper. The foam or other pumper can connect hydrant without water stoppage during sequence of operation. (Not possible with 2½" valved suction on truck)

10 In the case when water mains are generous but hydrants not closely spaced, pumpers equipped with Keystone Valves on both suctions will permit six or more 2½" hose lines of short lengths with minimum friction losses and maximum volumes all without water stoppage during entire operation. (Utmost speed—low hose pressures—low engine speeds.) (This is not possible with the 2½" valve suction)





KEYSTONE VALVE CORP.

P. O. BOX 6716

5325 KIRBY DRIVE HOUSTON 5, TEXAS

REPRESENTATIVES IN VARIOUS CITIES THROUGHOUT THE WORLD

Minutes Ago This Jet Was Ablaze

This Jet Fighter skidded over half a mile and burst into flame at Worcester airport. In minutes Rockwood Double-Strength FOAM was blanketing the blaze. A dangerous fire was soon under control — because the airport and Worcester Fire Departments were prepared.

As you know, the danger of highly flammable liquid is not confined to aircraft. Every day tank trucks carrying volatile fuels move in and out of your city. Rockwood Double-Strength FOAM can help protect your city from this potential danger.

Rockwood Double-Strength FOAM applied with a Rockwood FW Eductor fights flammable liquid and other fires of the same type fast and sure. Three parts mixed with 97 parts water forms a solid FOAM blanket that quickly reseals itself. The Rockwood Eductor with the new FW metering check valve and the Type SG60 nozzle applying the FOAM make short work of fire.

Be prepared. Put this fire fighter to work. Specify Rockwood FW Eductor when you order a truck. Write Rockwood Sprinkler Company, 2026 Harlow Street, Worcester 5, Mass.

ROCKWOOD SPRINKLER COMPANY

Engineers Water . . . to Cut Fire Losses

Distributors in all principal cities

The Variable FW Metering Check Valve on the Rockwood Eductor is highly versatile (standard equipment). Both are incorporated in a single unit. Material is metered into the hose line in any proportion from 1% through 6%.

DURA-FOG

- Stream can be selected by sight or touch
- Clicks into straight stream or desired fog pattern
- Floating gland type shut off
- Shock absorbent shut-off mechanism
- No kick back
- Rubber bumper
- Sturdy handle

PLATE 261

FOG CHIEF

- Compact
- Advantage of shut off, straight stream, and a variety of fog patterns
- Operates easily under high pressure
- No kick back
- Rubber bumper

PLATE 262

Both Nozzles, 1½" Size, Can Be Supplied with Either 60 or 100 GPM Discharge at 100 PSI, 30° Fog Pattern.

60 GPM for rural areas or where water supply is limited
100 GPM for cities or where water is plentiful

Our **65** th Year

POWHATAN BRASS and IRON WORKS
RANSON, WEST VIRGINIA
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Established 1892

Now! Telegraph and Voice in One Alarm Box

Gives Fastest Action for Fires and Emergencies

Now, you can have real two-in-one protection for your community . . . fast, automatic signalling for fire alarms and multi-purpose voice for general emergencies.

The Gamewell "Citizen's Emergency Center," just developed as a combination system, provides the ideal type of communication for reporting the two basically different types of emergencies found in every community. The inherent speed, safety and positive identification features of telegraph fire reporting are retained — plus an independent voice circuit for reporting non-fire emergencies over a special private-line circuit to police or central switchboard. A Police Privacy Alarm System is also available.

Write for complete details! Give your community maximum protection at minimum cost. Here is the opportunity for a completely integrated and independent Fire and Emergency Alarm System always ready for use on a 24-hour basis. It can be added to existing system or completely engineered as a new installation. Ask for FREE SURVEY and further details from:

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First When Seconds Count

Please send information as checked below:
- ☐ Catalog data on Citizen's Emergency Center
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VOL. 110, NO. 11

FIRE ENGINEERING

THE JOURNAL OF THE FIRE PROTECTION PROFESSION SINCE 1877

NOVEMBER, 1957

Top Level Training — A Must!

At its New Orleans Conference the International Association of Fire Chiefs took action which many leading fire officials of our nation consider to be the most important step ever taken by that body.

This was to create a fund to be known as the I.A.F.C. Administration Education Fund, and to launch it with an appropriation of $10,000.

Briefly, the purpose is to establish advanced training in the field of administrative support for fire chiefs and men who are coming up to become chiefs. One might call it top-level training in fire department administration, management and supervision.

The preliminary idea envisages a package training course of possibly eight to ten weeks duration which can be put on at any school or college throughout the continent, to bring the fire chiefs the educational advantages which today are enjoyed by the police, city managers, city engineers and other municipal officials.

The resolution of the I.A.F.C.'s Committee on Fire Administration Education, which advocates the program, points out that today the profession of fire chief has advanced and enlarged to a point where that individual has major administration and management responsibilities beyond those of technically supervising fighting a fire. These include personnel administration; budgeting, and finance; promotion and enforcement of safety standards; public relations; building programs; civil defense and coordination, to name a few.

Obviously, such responsibilities call for executives well qualified in management ability. Inasmuch as promotion in the fire service comes from the ranks, leadership, also, must come from within. Likewise, the impetus for furthering that leadership must generate from within the service.

The Committee points out that in-service training of fire officers in administration and management is presently either inadequate or nonexistent, and it adds: "The fire service is the only career field presently without adequate administrative management and education being generally available in schools and colleges."

This proposed top-level training program is a laudable endeavor—one that is vitally needed if the vast and complicated business and profession of fire suppression is to face up to its growing responsibilities in this chemical, electronic and nuclear age.

How well the project develops depends upon many imponderables, the most pressing being (a) funds and (b) the right personnel to plan, prepare and prosecute the program.

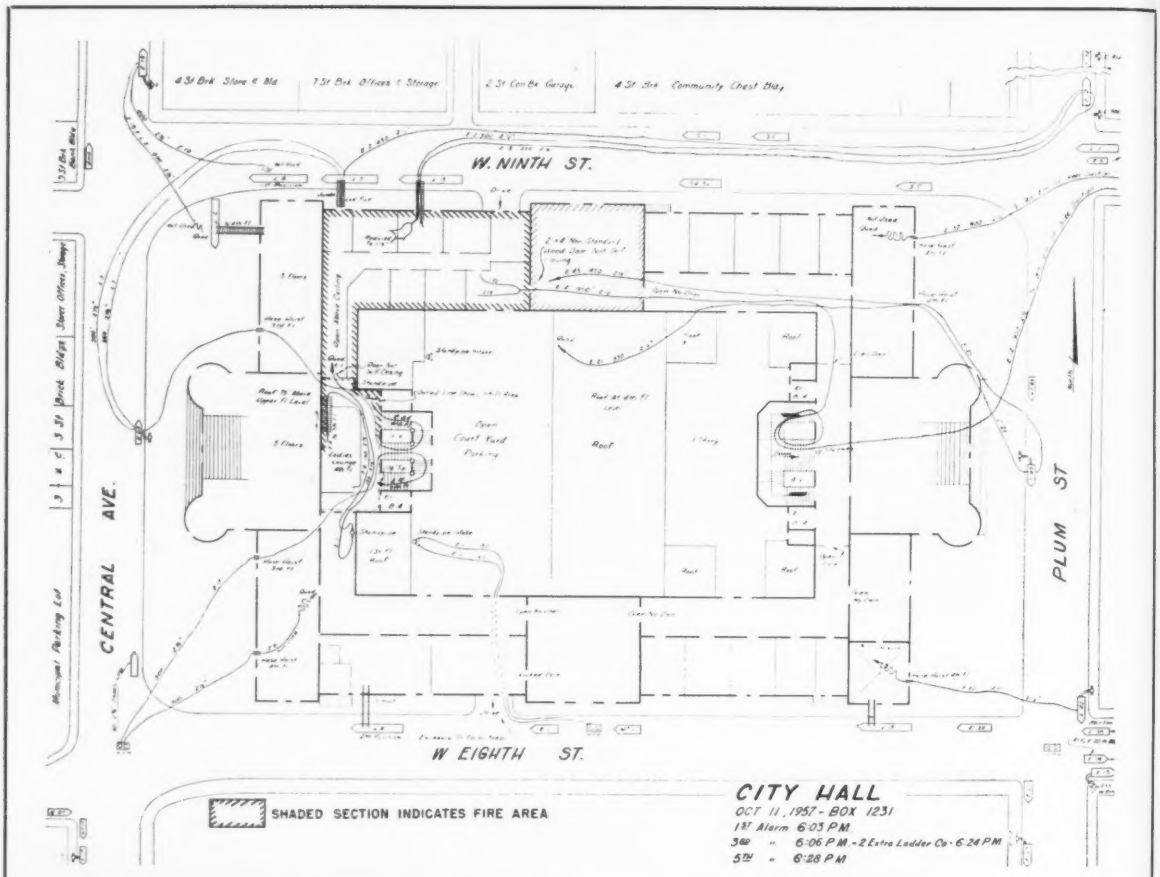
From its inception, the Association, and FIRE ENGINEERING, have preached the importance of training in firemanship. Various plans and programs have been prepared and recommended by the Association, the most ambitious being that submitted in 1939 by former Fire Chief Scott of the Los Angeles City Fire Department. Most of these, it must be admitted, failed to include education and training at the top levels. None of these programs, unfortunately, came to complete fruition.

Let us hope that this latest enterprise will have a better fate. It should.

The Committee, chairmanned by Provincial Fire Marshal William J. Scott of Toronto is well balanced with fire chiefs and educators adequately equipped for the task.

One of the first actions following the appointment of the Continuing Committee or board which will ultimately direct the program, should be to enlist the cooperation of the several organizations and groups associated with the fire service, and to bring about the coordination of top-level training as now being carried out, or contemplated by many of our existing fire schools and colleges. The time is ripe for a well planned and prepared, coordinated effort. Let's go!

Roi B. Woolley


W. NINTH ST.
CENTRAL AVE.
PLUM ST
W EIGHTH ST.
Open Court Yard Parking
Municipal Parking Lot
SHADED SECTION INDICATES FIRE AREA
CITY HALL
OCT. 11, 1957 - BOX 1231
1ST Alarm 6:05 P.M.
3RD " 6:06 P.M. - 2 Extra Ladder Co. - 6:24 P.M.
5TH " 6:28 P.M.

THE COVER STORY

Cincinnati City Hall Saved by Fire Fighters

Fast attack confines threatening fire in old, uninsured structure

Is your city hall and municipal records a fire risk? Have you preplanned fire fighting measures in case fire strikes? Do you include periodic inspections of municipal property or is it overlooked? The upswing in fires in the municipal property category suggests a review of these and related questions.

A FIVE-ALARM FIRE, fought by 33 units of the Cincinnati Fire Department and Salvage Corps, Saturday, October 11, was held to a property loss of $135,000 by fast action on the part of fire fighters and salvage corpsmen.

In some respects the fire paralleled that which caused over $500,000 loss to Chicago's City Hall, last March. Both fires occurred at about the same time of day; both were in areas of old buildings that had been altered by addition of combustible materials; both saw priceless and irreplaceable records endangered—some destroyed. And in both, firemen and salvagemen cooperated to hold losses to a minimum.

The building involved

The Cincinnati City Hall is a four-story and basement brick and stone structure built in 1888, housing most of the administrative offices of the city. It occupies most of the block bounded by Central Avenue and Plum Street, and West Eighth and Ninth Streets. It is in the form of a partial hollow square with a

courtyard in the center (see diagram).

The roof and cornice elevation varies throughout, with the fourth floor level being equal to the average six-story building. In the fire area, the cornice is about 80 feet and the roof ridge 125 feet above street. A clock tower is located at one end of the structure. The basement is partially occupied by a jail.

There are two large open stairways from first to fourth floor, one at the east and one at the west side of the building. Open corridors on all floors are continuous with the stairs.

On the third floor, the corridor extends about three-quarters of the way around the building, from the east to the west side of the City Planning Commission's offices which were directly under the fire area and contained an enormous value in redevelopment and expressway plans, maps and records, many of which were on desks and drawing boards. None was damaged due to effective salvage work (see the salvage report which follows).

Most of the fourth floor was formerly attic space and generally open throughout with several unprotected arch openings and one complete fire wall in the north center that had been breeched to install a small two-foot by four-foot slab door.

Floors throughout are concrete. The roof has a very steep pitch, about 70 degrees. It is covered with heavy red tile wired to open steel framing on massive open steel "A" frame trusses. Part of the fourth floor weight is hung by suspension rods from the roof trusses.

The fire area was bound as follows: On the west is a brick wall with no openings in the fire area; on the north is the outside stone wall which extends about 6 feet above the fourth floor level with dormer windows extending above, the sills of these windows being 7 feet above the floor. On the east is the brick wall with a small door; on the south an outside brick wall faces the courtyard and produces an "L" shaped interior that extends toward the stairs and main corridor. There is no fire separation on this side of the structure.

The door, indicated on the diagram, is wood panel in plastered partition, above which a wood partition partially closes the space communicating to a fifth floor attic. The roof elevation is about 40 feet above the floor, but the entire area had been remodeled with combustible ceiling 8 feet high and combustible partitions, dividing it into numerous rooms used for record storage, locker and wash rooms and janitor supply storage; one room was occupied by the custodial staff; a small refrigerator in this room was used to keep lunches. The fire originated in this refrigerator.

The building is equipped with standpipes and first aid fire equipment.

The fire

It has been established that the fire started in the motor of the refrigerator in the custodian's quarters. How long before it was detected is not known, but apparently a number of persons observed it at about the same time, at about 6:00 p.m. The first alarm was turned in by a pedestrian who ran to the quarters of the Salvage Corps, one-and-a-half blocks away. Upon leaving their station corps members could see that a serious fire was in progress and they so notified the Fire Tower.

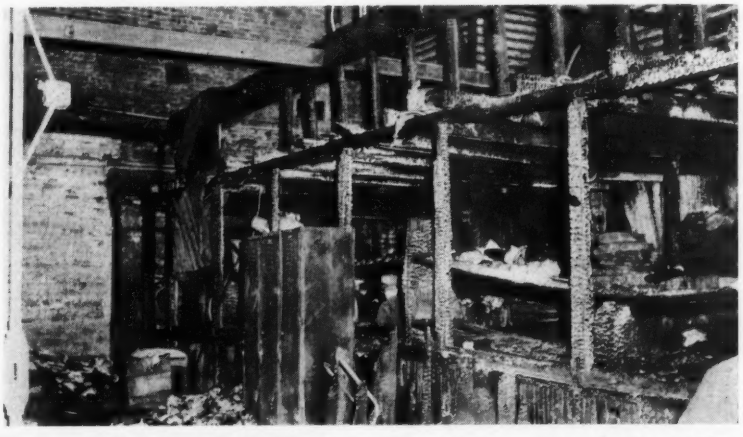
Battalion Chief 1 (Edward Avey) on arrival, saw the top floor of the northwest section heavily involved, with flames showing at dormer windows and heavy smoke pushing through the slate and extending laterally in the roof areas. This extension proceeded to such a degree that Battalion Chief 3 on arrival, estimated the clock and bell tower to be an immediate exposure.

Section of burned area showing remainder of combustible material; rods supporting part of hanging floor and (at top) deflection of unsupported steel beams. Overhaul and salvage is being conducted—*Photos courtesy Cincinnati F. D.*

There were relatively few persons in the building at the time of the fire. All of these left without injury. Among those evacuated were 19 men and five women who were removed without incident from the central station cells in the basement.

Three telephone operators, Miss Florence Ballard, Mrs. Clara Buescher and Mrs. Charlotte Weidemann, remained at their posts throughout the fire. Water temporarily interrupted some circuits but these were quickly restored.

Most of the combustibles in the area involved, and material in the section around the angle of the inner wall, were consumed, the degree of damage decreasing away from this point. Extension of the



Where record loss was highest. Part of gutted area showing part of combustible partitions and shelves. Despite almost complete destruction some records were salvaged

fire over the plastered partition involved the loft area above the ladies lounge.

A section of the concrete roof about 20 feet square, fell and this allowed tar on the roof to ignite. The weight of the suspended floor pulled the heated roof trusses down and dropped the floor about 8 inches. This caused a crack to open in the ceiling below (fourth floor) through which considerable water escaped.

Department response

First Alarm—6:03 p.m. (Box 1231) Ninth and Central; Engines 45, 44, 2, 1; Ladder 7; Squad 52; Battalion Chief 1; Salvage 1 and 2.

Second and Third Alarms—6:06 p.m. Engines 13, 6, 17, 42, 19, 21, 22; Ladders 15, 4; Ambulance 1; Salvage 3, 4; Light Plant; Chief Vogel; Assistant Chiefs Flam, Kuhn and Devine; Superintendent of Equipment, Moeller; two Assistant Drillmasters; two Fire Prevention Investigators; Fire Department Physician; Battalion Chiefs Spelman and Bellerson; Superintendent of Communications Jones and Nightengale of the Fire Alarm Division, and Chiefs of Salvage Williams and Frank.

Special Call—6:24 p.m. Ladders 1 and 2 (specified 100-foot aerials).

Fourth and Fifth Alarms—6:28 p.m. Engines 23, 32, 37, 39, 18, 38, 5, 34; Ladder 13.

Also responding: City Manager C. A. Harrell and Safety Director Oris G. Hamilton.

All additional alarms transmitted by radio. Chief Avey shot in the third without leaving his car. Chief Vogel ordered the special and the fourth and fifth.

Fire fighting operation

Radio notification from the salvage unit, together with the several calls received by the tower via telephone and box from police, citizens and City Hall employees, provided ample warning of the seriousness of the fire; the tower was able to notify all responding units of the situation.

Battalion Chief 1 (Avey) having a thorough knowledge of the building and existing conditions, radioed the combined second and third alarms and used the following strategy:

1. Placed an aerial ladder pipe to work into the dormer windows to reduce the volume and hold fire until an inside attack could be made.

2. Sent two engine companies to the area of greatest exposure on the west side with instructions to get the dry standpipe in service and hold fire at the top of the stairway.

3. Sent other first alarm engine company to the east side to hold the fire at the fire wall on the fourth floor.

4. Directed Battalion Chief 3 to take over operations on the interior east side and Battalion Chief 2 to the outside, going himself inside to the west section.

Upon his arrival, Chief Dan Vogel placed three assistant chiefs as follows: One on each side of the main fire area and one in charge of salvage operations, below the fire.

It was impossible to tell in the early

Salvage Pays Big Dividends in City Hall Fire

AS IN THE CASE of the Chicago City Hall fire (see FIRE ENGINEERING of May, 1957) prompt and efficient salvage work, in which crews of engine and ladder companies were detailed to assist members of the Salvage Corps, paid off handsomely in reducing the property loss.

In both incidents the destruction by water could have far exceeded the actual fire damage; irreplaceable records were saved by efficient salvage operations greatly in excess of those lost or damaged. In both cases, these operations made it possible to resume business in the city halls with practically no delay.

"It's a bad fire"

Actually, the Cincinnati Salvage Corps had a "front row" position in this fire. The first notification of the blaze was given them by an excited citizen who ran the one-and-a-half blocks between their station and the fire. As the first section of the corps rolled out, the second section was notifying the Fire Tower (Fire Communications Office). Then it followed hard on the heels of the first. Even before they pulled up to the building the officer had notified headquarters (Fire Tower) "It's a bad fire."

With this "jump" on the fire, salvagemen were able to spread many covers where they would be most needed even before water was started by the engine crews. Knowing the building as they did, and the fact that the fire was engaging the attic and roof areas and that heavy amounts of the water used in controlling the blaze could be expected to find its way to lower levels, two additional units of the salvage corps (3 and 4) responded with the second and third-alarm departmental assignments.

The area of greatest possible water loss was the third floor. The City Planning Commission's offices are located directly under the fire area and contained, in addition to furnishings, large quanti-

Complete coverage of some 26 drawing desks containing costly expressway and distributor drawings, in partial area protected by covers. No damage was done by water which came through ceilings—*Photos by W. K. Augenbaugh, WLW-T News*

stages how far the fire had extended and because of the great area and high values involved, the Chief radioed for two additional 100-foot aerial ladders, following this with fourth and fifth alarms.

Other companies coming in were placed as deemed necessary to cover all possible areas of extension, and to extinguish the fire. However, the vigorous initial attack proved very effective and not all responding companies were required to throw water.

As rapidly as inside lines were in effective operation, ladder pipe and other outside streams were shut down. No outside stream was operated more than ten minutes. There was little if any, extension of the fire beyond the area involved upon the fire department's arrival.

As soon as it was evident that the fire was confined, all possible personnel were employed to carry out salvage operations. These are detailed elsewhere in this issue. Overhaul and salvage proved to be the most protracted problems of the entire operation.

Notwithstanding the risks taken by fire fighters, many of whom operated amid flying slate which crashed from the steep roof on the Ninth Street side, only four were injured, none seriously. They were Robert Becker, Life Squad member, and Virgil Hildebrand, Ladder 7, both of whom suffered severe foot burns when they stumbled through heavy smoke into a tub of boiling water, left behind by cleaning employees who had fled; Robert Stevens, Ladder 15, eye injury from flying debris, and Kenneth Knight, sprained ankle due to a fall.

Comments and conclusions

In his report of the fire, Chief Vogel made these comments:

1. The work of the department can best be expressed by quoting City Manager C. A. Harrell: "Please accept my heartiest congratulations for the excellent manner in which the department carried out its duty at the City Hall fire on last Friday evening."

2. The rapid placing and use of hose lines on this fire undoubtedly prevented an early collapse of the unprotected steel trusses and the "hung" fourth floor. Failure had already started in the truss over the most intense fire area. If the remaining combustible material had continued to burn and heat the other trusses, complete collapse of this section would have been very likely.

3. An off-duty battalion chief reported for duty in Battalion 2 and made one run before he was relieved (a number of off-duty firemen also reported).

To the foregoing the editor would add: preknowledge of the building and its contents, was an important asset.

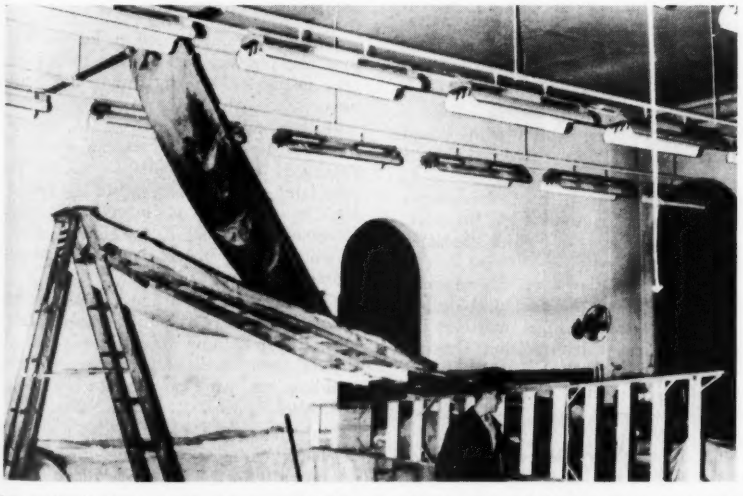
The fire, with property loss estimated at $135,000, points to the fallacy of not insuring municipal property, especially when of a combustible nature. Press reports set the total value of Cincinnati municipal property at over $150,000,000 —none of it insured. Which makes all the more remarkable the fire department's "stop" on this City Hall.

The editors extend appreciation to Fire Chief Dan Vogel from whose report, and that of the daily press, the foregoing has been compiled.

ties of redevelopment and expressway plans, maps and records, of enormous value. Many of these were on the desks and drawing boards, at the time of the fire. None of these was subsequently damaged due to effective salvage work, although tons of water were poured into this area. Most of the fire fighters who were detailed to assist in salvage operations centered their efforts on the third floor. However, files and office furnishings on floors below were all covered wherever water found its way through floors or openings.

Covers were used to channel water through the halls and stairways to the Central Avenue entrance. Catchalls were contrived to collect draining water, which was chuted out of windows. As floors below the fire were lighted by generators carried into the structure, shovels, buckets, squeegees, mops and brooms were all employed to remove the run off.

One pool of water which had collected in a sunken part of the floor to a depth of 8 inches was rapidly reduced to about an inch by means of taping the upper intake holes of a siphon. One chute consisting of covers on ladders, about 35 feet long, was constructed by the salvage corps to direct out the window water that was finding its way through a third-floor ceiling crack.



Improvised chute made with several ladders, ceiling hooks and salvage covers was used to divert water 35 feet from a break in the ceiling to the outside via an open window on the floor directly below the main body of the fire

Communications uninterrupted

A facility that received prompt attention was the City Hall telephone exchange. Although threatened by water, prompt covering protected it, and it and its three operators continued in service throughout the fire.

Utilizing the stairs, canvas dikes were constructed from the first floor to the fire area, to channel the water down to the street. It is worthy of mention that no water reached the basement.

Several tons of old records and cash books, docket books of police and traffic courts etc. were destroyed but the irreplaceable records, drawings, etc. were saved. City officials were loud in their praise of the salvage operation.

The assistance of the crews of eight engine and one ladder company which were detailed to assist salvage corpsmen as quickly as it was found they were not needed to fight the fire, was a factor in furthering salvage work. Chief Vogel's report states, "As soon as it was evident that the fire was not extending, all possible personnel were used to carry out salvage operations."

As a further step, large hose lines were shut down immediately, when their use was not required, and smaller lines substituted for the overhauling.

A total of 174 large covers were reported spread. In some places on the third floor they were doubled to insure protection against the flood of water.

Salvage operations were directed by Chiefs Frank and Williams. □□

Switchboard operators are key personnel in emergency planning. Mercy Hospital telephone operator, Mrs. Frances Collins and Sister Marie Corde demonstrate the use of the "master alarm" while Sister M. Roselle, center, observes the operation. Sister Marie Corde is fire director at Mercy Hospital and Sister Roselle recently assumed similar duties at Timken Mercy Hospital

Cooperation Leads to Safety for Hospitals' Patients and Firemen

A hospital administrator tells what the cooperation of the local fire department did for her institution

By SISTER M. HENRIETTA*

Administrator, Mercy-Timken Mercy Hospitals, Canton, Ohio

Much more is written and said about the disasters that strike our places of public assembly such as hospitals than the measures that are taken to prevent such disasters. That is why it is refreshing to hear from a large hospital organization about the preventive steps it has taken to safeguard its patients—and too, the fire fighters who may be called in should fire strike.

This account of cooperative effort between the Mercy-Timken Mercy Hospitals of Canton, Ohio, and the local fire department headed by Chief William H. Rosche, is enlightening and encouraging. Its lesson may well be taken to heart by other enterprising fire chiefs and hospital administrators.

THE WORK OF THE CANTON, OHIO, fire department, especially its fire prevention bureau, has been most valuable to the administration and staff of Mercy-Timken Mercy Hospitals.

Through joint effort, the firemen and hospital officials have developed numerous fire prevention programs, most notable of which was the installation of a luminous tape on all windows which lead into clear areas. Such markings assure firemen that they will have access to corridors or rooms without the danger of falling over equipment or furniture. Patients' rooms are not included as satisfactory entrances.

The tape was placed on the windows more than 23 months ago, and despite constant washing and bad weather, has shown little or no deterioration. Original tests showed that the tape gave excellent reflection of light from a flashlight even when aimed to a height of six floors.

The strips of tape are 3 inches by 6 inches, and of the type used for traffic marking on streets. Several colors were tested, but the yellow proved most reflective.

Inspections imperative

Other programs carried on by the firemen and hospital personnel include periodic inspections of all patient and work areas after which the inspectors meet with hospital representatives to discuss unsatisfactory items. A written report is submitted to the hospital administrator who later holds meetings with the hospitals' fire directors, engineers and other interested personnel. Every effort is made to correct any unsafe condition immediately.

To augment the routine inspections by firemen, members of the hospitals' safety council report any fire hazards noted during their continuing surveys of the buildings and work practices of operating personnel.

Regulation drills for all shifts are held regularly, many of which are done in cooperation with the fire department. Firemen observe procedures, note any errors, and make recommendations concerning the drills.

* Sister M. Henrietta is a member of the Sisters of Charity of St. Augustine.

Left: Inspector R. Ted Wilson is assured a safe entrance into Mercy Hospital because the marked window indicates a hazard-free area. Center: Captain Kenneth F. Ash who is in charge of the Canton, Ohio, Fire Prevention Bureau and Sister M. Henrietta study blueprints of Timken Mercy Hospital prior to the installation of a modern fire alarm system. Right: Sister Grace Marie, safety Director at Mercy Hospital, and Dr. Alan Raftery, director of laboratories for Mercy and Timken Mercy Hospitals, show laboratory personnel the safe method of storage and use of flammable liquids

Evacuation by plan

Firemen are always concerned with the possible need to evacuate the building, so they were consulted when written evacuation plans were prepared as a part of the hospitals' FIRE PLAN and DISASTER PLAN. The latter includes four possible needs for emptying the building including fire, tornado, enemy attack and miscellaneous reasons. Firemen assume complete control during fires and are called for assistance during any of the other situations.

Although Mercy-Timken Mercy Hospitals cannot be sure that a fire will not start, knowledge that the fire department is ready and available to give immediate assistance does much to provide a feeling of assurance and to stimulate interest in the fire prevention training programs.

Familiarization with the interiors of the building is considered a primary asset for members of the fire department, so special tours are provided at scheduled intervals. A member of the hospitals' staff directs the tours, assisted by a representative of the fire prevention bureau who points out various fire fighting equipment, major control valves and other pertinent information.

Chief William H. Rosche of the Canton Division of Fire, and every member of his department have been most cooperative in helping to train hospital personnel in the proper use of extinguishers, methods of transporting patients and in making suggestions concerning the most effective fire prevention methods.

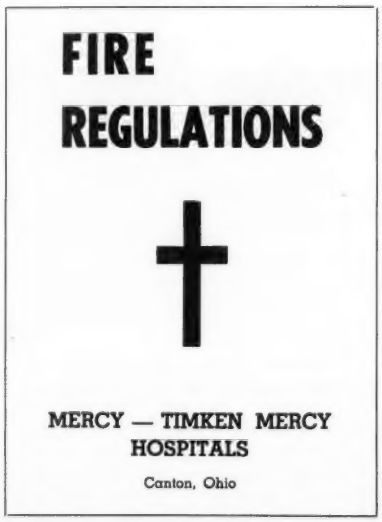
The hospitals' personnel have given the firemen every opportunity to familiarize themselves with the building and have included the fire department in every major disaster test.

Captain Kenneth F. Ash of the fire prevention bureau and his assistants, Inspectors Karl Lehr and R. Ted Wilson, have given the hospitals' employees a desire to know what to do in the event a fire should occur.

The hospitals have master alarms which are connected with the fire department, thus assuring the immediate response of firemen should a disaster develop. As additional protection, a roll of dimes is attached to each switchboard for use if hospital telephone services fails. In such a situation the telephone operator uses public telephones during the emergency.

Through this program of mutual cooperation, education and testing, the patients, visitors and personnel as well as the firemen are assured maximum safety during any emergency.

We have an alert sense of security in knowing that this joint continued effort provides the margin of safety and may save many lives, because well trained people will avoid panic and take positive action. □□



Hospital personnel each receive a copy of the plans shown, instructing them on the part they play in the event of an emergency

Radio... wet water ... tree sprayers concrete mixers gasoline and fuel oil tankers ... planes and earth movers all mobilized by volunteers and rangers to combat

Fire raced through pine forests in unpredictable pattern as high winds changed direction frequently—*Photos by J. F. Lonergan*

New York State's Most Threatening Area Fire

A FOREST FIRE, described by New York State Conservation Commissioner Sharon Mauhs, as the worst in 13 years, burned for nearly five days in Northern New York's Adirondack Mountains during August 21 to 26, 1957. Before being subdued the blaze blackened more than 3,000 acres of scrub pine and brush, threatened the destruction of the village of Altona, and caused Governor Averell Harriman to order the State Fire Mobilization and Mutual Aid Plan activated at 6:05 p.m., August 24.

The fire was first observed by the Conservation Department in the Flat Rock area, Town of Altona, Clinton County, on the morning of Wednesday, August 21. It is believed to have been started by berry pickers.

At 10:15 a.m. on Thursday, the 22nd Forest Ranger Robert Lashway called Clinton County Fire Coordinator Melvin W. Titus and requested tank trucks to supply water to forestry personnel then engaged on the fire line.

Coordinator Titus dispatched five fire department tankers by radio from Chazy, West Chazy, Champlain, Mooers and Ellenburg Depot to the Flat Rock supply point where the units were used as primary water supply sources for Conservation pack crews. At 8:30 p.m. that day, all fire department apparatus and personnel were excused by the ranger.

Fire Goes Out of Control

Reports do not indicate the measures taken by the Conservation personnel during the night to operate on the fire, but by daylight it was evident that it had made headway. At 9:00 a.m., Friday, August 23, Ranger Lashway notified the fire coordinator that the fire was out of control and more assistance was needed. Chief Titus immediately dispatched the five tankers from the previously mentioned departments which were used the preceding day and in addition requested each to send a pumper and extra manpower.

The fire grew in intensity and shortly

before 10:00 a.m. additional personnel was requested from the Plattsburgh Air Force Base and a radio squad car and 50 men responded. At this time it also became evident that more water carriers would be needed to meet the increasing demands and the fire coordinator ordered the County Control Center at Plattsburgh Fire Headquarters to seek such facilities from sources outside the fire service. Three tree spray tankers, each of 500 gallon capacity, were sent from Chazy Orchards and four 4,000 gallon milk tank trucks were dispatched from local milk concerns to the scene.

The water supply point at this time was a pond in front of the Altona High School. A further step taken to meet the increased demand for water was to request the Miner Foundation, which operates an agricultural research school in the area to open the gates of a dam on its property. This would enable firemen to obtain water from the Great Chazy River which crossed the highway near the fire force field headquarters. Portable pumps were set up at this source and used to replenish the tankers.

Early Friday afternoon (2:00 p.m.) pumpers from Morrisonville and Peru fire departments were ordered to the scene as further reinforcements. By 7:00 p.m., the operation was proceeding satisfactorily and the coordinator relieved Mooers and Chazy crews that had been in operation throughout the day; units of five fire departments, together with Air Force, Conservation and volunteer personnel remained on duty.

About 9:00 p.m. that evening the wind suddenly increased in velocity and changed direction. Mooers, one of the departments previously relieved, was recalled and the Plattsburgh Air Force Base was requested to dispatch a tanker to assist in meeting the new threat.

By 10:00 p.m., relief crews which had previously been provided for, began arriving at field headquarters. The Plattsburgh Air Force Service Center sent food and coffee which was served by the Champlain and Chazy Ladies Auxiliaries.

Wet Water Employed

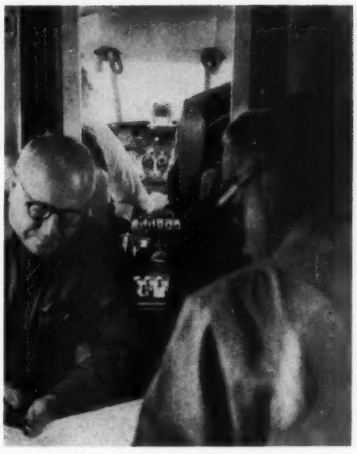
In the early stages of the action, in addition to employing the customary fire fighting facilities and tactics, use was made of wet water. By Friday evening, however, all available supplies of wetting agents were depleted and Coordinator Titus radioed Plattsburgh in an effort to obtain eight cases of a liquid detergent, normally used for household purposes, which he proposed using as a substitute. This extinguishing expedient was mixed at the pump-can supply points in a proportion of one small soda pop bottle of the detergent to each five gallon can of water.

Although the improvised substitute lacked the efficacy of the standard wetting agents, it was successful in some cases.

Headquarters Threatened

About midnight Friday, fire broke through the woods at the rear of the Weightman farm, at that time the location of fire headquarters, and seriously threatened the immediate area. All nearby units concentrated on this blaze, in addition two conservation department bulldozers were used to cut fire breaks. During the excitement Ernest Weightman, owner of the farm, suffered a heart attack and was removed to Physicians Hospital in Plattsburgh.

By 5:00 a.m. on Saturday the 24th, the fire was being fought on a ten mile front. At that time forces from Rouses Point, Keeseville and Cadyville were called in to relieve the tired fire fighters of Peru, Champlain, West Chazy and Chazy, who had been operating all through the night.

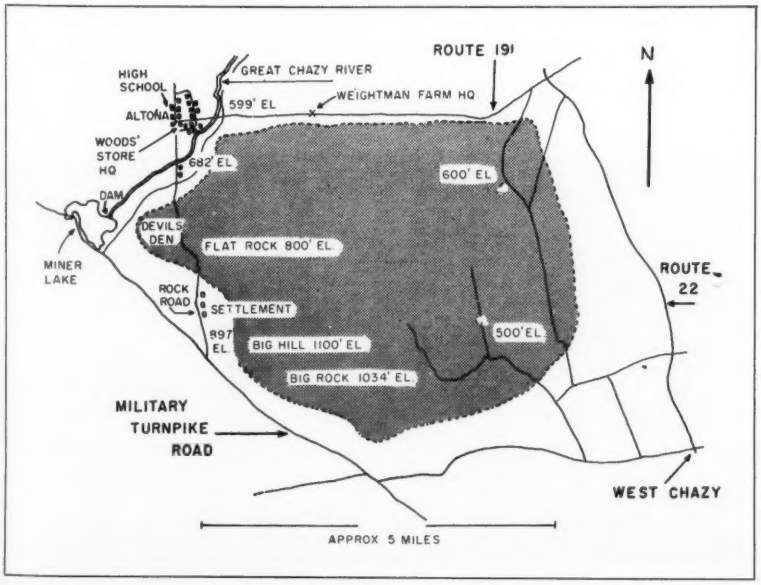


Commissioner Mauhs and District Ranger Petty on observation flight over fire area. The Conservation Department plane was constantly used to supplement ground reconnaissance by fire and police patrols

Shortly after 1:00 p.m. a radio patrol car reported that the wind had again shifted and the fire was threatening seven homes in Flat Rock Settlement. All available units were ordered to this area and were successful in saving the threatened buildings, aided somewhat by a further shift in the wind. At this time reports were received that the main fire was advancing out of control and that wind velocity was increasing.

Faced with the increasing danger, Coordinator Titus ordered all available water carriers within a ten mile radius of the fire to be sent to the scene. At the same time he alerted the adjoining counties of Franklin and Essex to stand by to give assistance. He recalled Chazy, West Chazy, Champlain and Ellenburg Depot Forces and in addition, called Dannemora and Ellenburg Center to the scene. Up to this point, every fire department in the county which had been engaged in the operation had reserve apparatus and manpower standing by in its home stations. From his own reconnaissance and field reports of the situation, Chief Titus foresaw that unless the wind decreased it was possible that all Clinton County Fire Departments might ultimately become involved, leaving to out-of-county forces the task of moving in to protect Clinton County.

About this time, seven volunteer workers operating with pack tanks and a water carrier were trapped by flames in the Flat Rock area. They were rescued by firemen in the immediate vicinity; the water carrier was also saved, although damaged by the fire. Two of the volunteers were burned about the face and head and were given first aid by State Police, who, assisted by Sheriff's Deputies, had been performing yeoman service keeping the roads clear for the fire fighters and acting as fire patrols with their radio cars.



Map diagram of Altona fire. Darkened section shows burned area approximately 25 square miles. Minor roads are shown as black lines

Volunteer fire crew retreats before windswept blaze. In spite of several close calls only two men required treatment for burns received while fighting fire. One water-carrying vehicle was damaged by flames

To further complicate the situation, the fire in the Flat Rock Settlement area again broke through in the immediate vicinity of the previously threatened buildings and once again, all available units engaged in another struggle to save these houses. At this time the fire was proceeding directly north but as it reached the edge of the woods and seriously threatened the first dwelling it capriciously veered west with an abrupt change in the wind.

Altona Threatened

This wind shift carried the fire across a road and fire break in the direction of the Village of Altona; at the same time it removed the immediate danger to the Flat Rock settlement. Three pumpers with water carriers were left at the Flat Rock scene and all other forces were redeployed to the west flank of the fire in Altona; At 2:15 p.m. the field headquarters was shifted to the south end of the village's Main Street.

The wind was now out of the southeast with a velocity of more than 20 mph. Directly in line with the fire at this time were 20 residences in the village. To protect these exposed buildings the fire fighters hurriedly set up portable pumps in creeks and laid out 1½-lines. Pumpers were connected in relay from tankers and the Conservation Department rushed bulldozers in by flat-bed trailers to cut fire breaks.

Several residents at the extreme south end of the area evacuated their homes; others had truck transportation standing by in preparation for moving out.

At this juncture, Coordinator Titus' earlier request for water carriers was bringing in vehicles of every conceivable description, including transit-mix concrete trucks, tree sprayers, gasoline and fuel oil tankers, and farm trucks loaded with cattle water troughs. These reinforcements, together with the mobilized fire forces were successful in saving the town, at least for the moment and the fire passed by to the west.

Emergencies Declared

At 3:30 p.m. Saturday, Sheriff Emmett J. Ducatte declared a natural disaster emergency and ordered out Civil Defense units. At this time the fire was steadily advancing northwest in the direction of Military Turnpike road, with periodic wind shifts turning the flames back towards the village in the vicinity of the field headquarters. By 4:00 p.m. Civil Defense units were arriving on the scene and these were immediately put to work. Medical units set up aid stations in the Altona High School and a feeding team opened the school cafeteria.

About this time (4:20 p.m.) another forest fire was reported near the southern border of the county, in the Keeseville Fire District. The Ausable Forks Fire Department responded to this new threat and at the same time the Keeseville Company, operating on the major fire line in the Altona area, was relieved to return to its own district.

With the second night approaching, relief personnel was brought in to spell off the crews that had been laboring tirelessly to contain the stubborn fire, and to service apparatus which likewise had been taking a beating. Civil Defense workers undertook the distribution of blankets and flashlights.

At 6:05 p.m. State Safety Director Michael Prendergast, on orders of Governor Harriman, activated the State Fire Mobilization and Mutual Aid Plan. In theory, this permitted Coordinator Titus to obtain all the necessary assistance he might require from any part of the state. He thereupon moved in further reinforcements of men and equipment from his own county to provide sufficient personnel and apparatus to operate on a six hour shift basis. And at the same time, he drew upon the adjoining counties of Essex and Franklin for additional forces to cover Clinton County fire stations left unmanned.

From Franklin County, Chateaugay moved into Mooers; a tank truck and a pumper from Malone Call Firemen's Association shifted to Ellenburg Center; a tanker from Moira and one from Constable were dispatched directly to the fire scene; from Owl's Head, Mountain View and Brushton 14 pump cans were collected and sent to the fire area.

Essex County dispatched Lewis and Reber department pumpers and 25 pump cans to the fire; the Essex Fire Department covered Keeseville's station.

At this time also, fire Coordinator George Briggs, of Saint Lawrence County, was asked to alert his forces to be prepared to stand by to back up Franklin County, which was heavily committed at the time by having to fight several fires in its own county, as well as assist Clinton.

During the long night of Saturday the 24th, and into the early morning of the 25th, the struggle continued to confine the spreading blaze which received added impetus from a fresh wind. Slight gains in some areas were offset by losses in others.

About 9:30 a.m. on Sunday morning another shift in the wind brought still another crisis—this time to imperil forces of three fire departments, Cadyville, Morrisonville and Keeseville by making inaccessible the only access road leading to them in the Big Rock area. The same shift in the wind increased the threat to several large residences and a store. The threatened fire fighters and equipment were safely shifted and deployed on the flanks of the advancing fire. With the aid of tankers operating in relays, the flames were halted and the buildings saved.

Another flare-up was reported about 11:30 a.m. in the Rock Road region and three pumpers, a tanker and personnel were dispatched to aid units already operating in this area to meet the new threat. The combined force ultimately managed to contain this outburst.

During the remainder of Sunday the tri-county forces were well occupied combating new 'heads' in previously unburned territory as the shifting winds fanned spot fires. At 3:15 three departments, West Chazy, Dannemora and Reber (from Essex County) were dispatched to handle a new fire which had broken out in the West Chazy area along Route 22. About this time heavy fire also erupted in the Devil's Den area in the northwest sector. Three pumpers, two water carriers, and 20 men with pack pumps were sent to cope with this newest challenge.

Milk tank truck pressed into service as water carrier for refilling pump cans at supply point. Every available water carrier in 10-mile radius of fire was used to haul water to fire forces

—Photo by J. F. Lonergan

During the afternoon better consolidation of the three county forces permitted a heavier attack on the fire at points where it was most needed. Soon after 6:00 p.m. that evening, a New York State Department of Public Works tank truck arrived, together with additional supplies of pack pumps from out-of-county to further strengthen the reserve pool, from which units operating on the fire line could be reinforced.

Rain Ends Siege

At midnight, welcome reports were received that rain was falling in the Plattsburgh and West Chazy area. The night air in the immediate fire zone was cool with a rising humidity and low wind velocity. No new outbreaks were reported in the following two hours and after a survey of the conditions Coordinator Titus relieved all Franklin and Essex County units.

At 5:00 a.m. Monday, rain began to fall in earnest and by 7:40 a.m. Chief Ranger Youngs declared the emergency ended. All fire forces, with the exception of Keeseville, were withdrawn, leaving volunteer personnel with pack tanks on duty to patrol the lines and effect complete extinguishment. At 8:00 a.m. Coordinator Titus deactivated the Mutual Aid plan and later that day Director Prendergast declared an end to the statewide fire mobilization.

Coordinated Command

The entire fire operation was under the command of Chief Ranger George Youngs, Conservation Headquarters, Raybrook, N. Y. Assisting him were District Ranger William Petty, coordinator of ground operations, and Rangers Robert Lashway, James Camp, Merchant Hutchins and George Ball. Ranger Clarence Petty piloted the Conservation airplane which was used to good advantage in observation work.

The conservation forces kept in contact by means of portable radios of the pack-set variety. The Forestry Department had nine pieces of fire fighting apparatus on hand, together with considerable specialized equipment such as bulldozers, etc.

Coordinator Titus established his field headquarters in those of the Conservation Department in order to effect liaison. Communications over the 25 square mile area were facilitated by the fact that all fire departments in the operation are radio equipped. (In this operation the involved county fire control center-base stations operate on separate frequencies. Under the New York State Fire Radio plan, a common mobile frequency may be switched into use on the apparatus, facilitating operation with out-of-county fire units.)

Over 200 fire fighters

The Clinton County fire service was in continuous operation for 105 hours. A total of 240 men from Keeseville, Rouses Point, Champlain, Morrisonville, Cadyville, Ellenburg, Ellenburg Depot, Chazy, West Chazy, Dannemora, Peru, and Mooers were engaged in the action together with equipment of their departments. The Plattsburgh Fire Department, which operates the county Fire Control Center, maintained 24 hour contact with the field Headquarters. Two or three dispatchers were on constant watch.

Franklin County sent pumpers from Chateaugay and the Malone Call Fire Department and tank trucks from Moira, and Constable. Essex County dispatched Lewis, Reber and Essex Fire Departments.

Plattsburgh Air Force Base supplied more than 50 men, plus tank trucks and other equipment; in addition, nearly 150 civilian volunteers including students of Bellarmine College, participated in the struggle.

The Champlain and Chazy Fire Department Ladies Auxiliaries were active with Civil Defense and Red Cross units in feeding the men on the fire lines; State Police and Sheriff's Deputies, assisted by CD Auxiliary police, directed traffic, patrolled the roads and acted as reconnaissance scouts for the field fire headquarters.

Fire line crew prepares for action on flank of fire. Civilian and student volunteers joined foresters, firemen and Air Force personnel in struggle to control 1,000-acre blaze
—Photos by J. F. Lonergan

State Conservation Commissioner Sharon Mauhs (right) is briefed by District Ranger William Petty at field headquarters as Forester Essmond Sears looks on

Few Injuries Reported

In addition to the two volunteer workers who were burned on the face and head, Coordinator Titus and Area Ranger Lashway suffered sprained ankles Sunday afternoon while on the fire lines. Fireman Herbert Gonyo, West Chazy, injured a leg when a pump can fell on him and State Policeman Salvatore Olivio received severe foot blisters.

Civilian casualties included Mr. Weightman, previously referred to, and Mrs. Alethea Trudo, who was admitted to the hospital suffering from a nervous reaction due to the fire threat to her home.

Conclusions

From the detailed and consolidated reports of this operation the following conclusions may be drawn:

1. **Inventory**—Large scale operations may call for a wide variety of fire fighting and auxiliary equipment, services and specialist personnel. Command headquarters should know where these facilities are located, and how they may be most quickly secured.

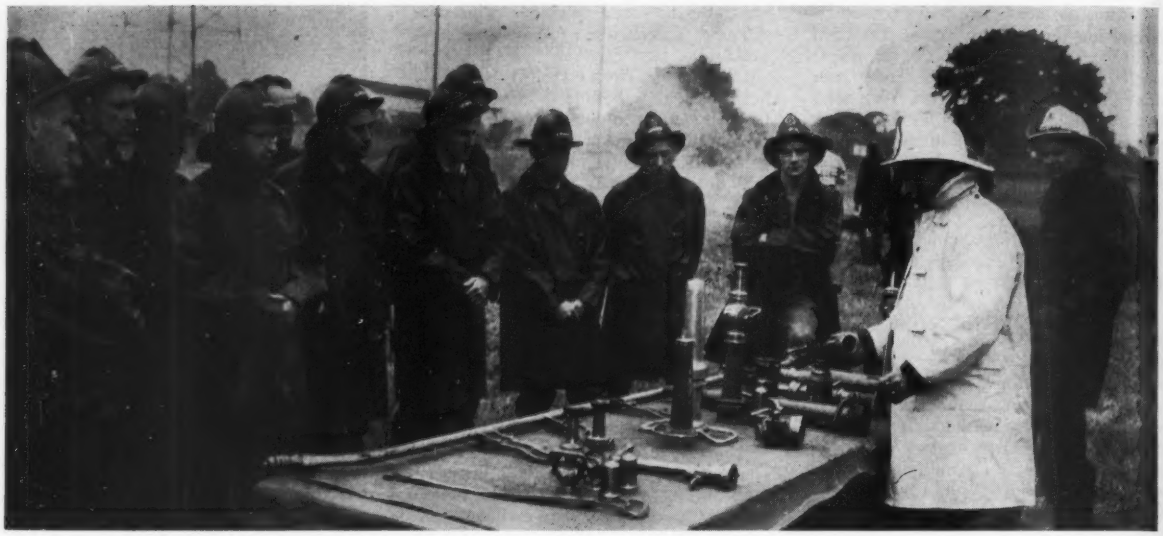
2. **Communications**—The prime requisite is radio, including vehicular and portable pack sets or walkie-talkie units, preferably on, or tied into, fire department or disaster frequencies.

3. **Command**—As quickly as possible a GHQ should be established, with the necessary zone controls. Authority and responsibilities of command should be clearly defined, understood and obeyed.

4. **Reserves**—Sufficient reserves should be mobilized and be readily available. The mobilization, rendezvous point or reserve park should be known to all operating and responding forces. In many disasters there is a tendency not to create sufficient reserves, especially where volunteers are concerned.

5. **Cooperation-Coordination** — Where numerous different services, such as fire, police, health, Red Cross, etc., are en-

Continued on page 1156



Purpose of various nozzles is explained during field training session by Assistant Fire Marshal Anthony Terriman to members of the Armstrong Cork Company's fire brigade at its floor plant. Fire Marshal George Nickel (right of Terriman) looks on

Armstrong Cork Adopts Training-by-Doing

DANGER FROM FIRES has been greatly minimized at Armstrong Cork Company's huge floor plant in Lancaster, Pa., through development of a highly efficient fire brigade training program.

Throughout the year, members of the fire brigade are given instruction in the latest fire fighting methods and equipment and every spring or early summer they are taken outside for field training—practice in putting out actual fires through methods they have studied.

This training program, which has been a potent force in preventing fires and quickly confining those few that do break out, was developed by Company Safety Manager Amos Keen and D. M. Essick, assistant manager of training, education and plant personnel administration.

Similar programs, although on a smaller scale, are carried on at Armstrong's 17 other plants.

Field training, the most colorful part of the program, is handled by the plant fire marshal or the fire chief at a number of plants. Outside fire officials supervise the training at several other plants. For instance, the state fire marshal directs the field training for the fire brigade at Armstrong's glass plant in Dunkirk, Ind., and the city fire chiefs direct the training at the company's tile plant in South Gate, Calif., and the tile and industrial specialties plant at South Braintree, Mass.

Keen said the firemen are trained specifically to handle the types of fire that could break out in their individual plants. Although the training they receive covers a fairly wide range, it is primarily tailored for fighting plant fires. Many members of the plant fire brigades use their training to aid volunteer companies in their home communities.

Armstrong's biggest fire brigade—the 90-member team at the huge floor plant in Lancaster, Pa.—is entirely company-trained. It has recently completed three weeks of field training.

The floor plant, which employs approximately 4,000 persons, is a small community in itself involving many different manufacturing operations for producing resilient floors of linoleum and plastic sheet goods and tiles, asphalt tile, printed floor covering, adhesives and other industrial specialties. The plant includes 199 buildings covering 2,500,000 square feet of floor space. Just as a small community needs a fire department, so does the floor plant need an internal fire fighting force capable of reaching the scene of any blaze almost immediately to protect lives and property.

Sprinkler protection plus

More than 90 per cent of the buildings are protected by a sprinkler system—practically all of the plant with the exception of areas housing extensive electrical equipment which might be ruined by water.

Despite this safeguard, the company feels a well-trained Fire Brigade is needed to give the plant maximum protection 24 hours a day. Most of the men are drawn from the yard force which handles the unloading of raw materials, truck driving and other miscellaneous labor. In the event of fire, they drop whatever they are doing at the moment and report to their stations.

These men are trained for their additional duties as firemen on company time. Once a year, in May or June, the men undergo field training so that they will know how to handle the equipment and how to work as a team.

There are 30 fire fighters on each of the three shifts at the floor plant. Each shift receives six hours of field training during two sessions a week. The training for the entire group is completed in three weeks.

The operation is directed by Plant Fire Marshal George Nickel with the aid of Assistant Fire Marshals G. A. Terriman and H. T. Levan. The fire brigade is directed by Fire Chief W. E. Evans, whose regular job is yard department general foreman. Six shift foremen, two on each shift, act as assistant fire chiefs.

First of the two field training sessions is devoted to methods for combatting Class A fires—common fires of paper, wood, cloth, etc., which can be extin-

Top: As part of their six hours of field training received each spring, members of the fire brigade of the Armstrong Cork Company's floor plant learn how to fight Class A fires (fires that can be put out by water such as the 20-foot high pile of burning wood shown above). Here the men are preparing to change nozzles to see the different effects that can be achieved by changing from solid stream to spray or fog

Below: Fire brigade members direct a stream of foam on a tank of burning solvent during field exercises. An adapter sucks chemical solution from can into the main water hose where it is converted into foam to smother fires of this nature

guished by water. Students learn how to handle hand extinguishers, a 40-gallon wheeled extinguisher and the large hoses with the different types of nozzles for spray, solid stream and fog. The biggest fire they bring under control is composed of wood pallets piled 20 feet high and 60 feet in diameter.

The second three-hour session, held on another day of the same week, teaches the men how to extinguish Class B fires—flammable liquids, oils, solvents, gasoline and other chemical type fires. They are taught how to use hand and portable extinguishers containing foam, carbon dioxide and dry powder and how to use both chemical and liquid extinguishing agents with appropriate nozzles and hose equipment to put out larger fires. They practice on tanks of flaming solvents.

In addition to Class A and B fires, the men learn how to combat Class C, or electrical fires, although they do not actually participate in any field experiments.

At these sessions they are cautioned to be careful with the reminder: "We can build buildings; we can't repair a man."

There is one main firehouse at the floor plant where the hose wagon, the equipment wagon and other fire fighting equipment and uniforms are kept. Fire hose lines averaging 150 to 200 feet in length are located at 45 strategic places in the plant. Hand extinguishers are all over the plant and all people who work near them are taught how to use them.

The company has had very few fires and those that did occur were mostly of a minor nature. However, the company makes it a rule to be prepared to handle any emergency that could arise at any of its 18 plants in the United States. □□

Atom Pearls Dangerous

A hazardous BB-like missile known as an "atom pearl" is currently on the market throughout this country, being sold in the various novelty stores to juveniles and other individuals interested in "having a good time."

Samples were submitted to the Indiana State Police Laboratories and the Chemistry Department of Purdue University for analysis. The Indiana State Police found the following: That the outside coating was a lacquer-type substance containing copper or brass, mainly used to hold the missile together. A gray band amounting to about two-thirds the diameter contained among other things phosphorus. The core of about one-third the diameter was definitely established to be potassium chlorate. This would mean that the whole missile amounts to the head of a match with the potassium chlorate being the striker and the gray phosphorus material the surface which the match head is struck against to ignite. The State Police Laboratories used a rubber band to shoot one of these missiles into a kerosene-soaked piece of cotton. It immediately ignited the cotton. It is their opinion that this missile creates a severe fire hazard should it be fired into a flammable substance or atmosphere. Additional chemicals noted from their spectroscopic analysis were manganese and iron.

Purdue University Chemical Laboratory confirmed to a great extent the report of the Indiana State Police Laboratories in that the material contained phosphates (phosphorus), nitrates, large amounts of aluminum, calcium, copper, magnesium and silicon, and moderate amounts of boron, silver, sodium and manganese.

Representatives of the Corporation Counsel's Office of the City of Chicago and the Fire Marshal of the City of New York, present at the Thirteenth Annual Seminar in Arson Investigation at Purdue University from April 29 to May 3, agreed to stop the distribution from sources in those cities.

Public Safety Institute
Purdue University

September Fire Losses

Estimated fire losses in the United States during September amounted to $72,264,000, the National Board of Fire Underwriters has reported.

According to Lewis A. Vincent, NBFU's general manager, this $72,264,000 loss represents an increase of 3.1 per cent over losses of $70,118,000 reported for September, 1956, and a decrease of 7.8 per cent from losses of $78,364,000 for August, 1957.

Losses for the first nine months of 1957 now total $778,597,000, an increase of 6.5 per cent over the first nine months of 1956, when they amounted to $731,203,000.

These estimated losses include an allowance for uninsured and unreported losses.

Safety Engineer John Santangelo of Nuclear Metals, Inc., demonstrating one method of extinguishing small Uranium fire. With long handle shovel burning Uranium is immersed in metal drum filled with water at right, between fire and operator. Observing operations, left to right, are Fire Commissioner Francis X. Cotter, Fire Chief Leo C. Driscoll and Assistant Chief William A. Terrenzi—*Boston F. D. photo*

Boston Launches Radiological Program

First of its kind in New England, program interests public and fire fighters

NOTHING SIGNALIZES the wide gap that separates the fire service of a generation ago from that of today as much as the introduction of nuclear fission and radioactive contaminants into the scheme of things. Today's fire fighters are entering upon, in fact have already crossed, the threshold of an era that beggars the wildest imagination. One is almost afraid to dream about what it will be like a generation hence.

Meanwhile, even though the mysteries of these products of the atomic age have not fully been plumbed, so far as their relation to the business of fire suppression is concerned, it is encouraging to observe that no undue time is being lost in forewarning the fire fighters of some of our "target cities" of the hazards that lie in wait for them through contact with, or even close approach to radioactive materials while fulfilling their mission as fire fighters, and of preparing them—at least to the limit of our present-day knowledge—for such contacts.

FIRE ENGINEERING has already told about some of these departments, and related case histories dealing with both radioactive hazards, and precautionary and corrective measures taken to safeguard fire fighters from them.

Now we bring our readers the brief story of current developments in Boston, where a three-day instructors' course on "Radiation Hazards in Fire Fighting" was conducted, June 25-27 by Francis Branningan, safety engineer, U. S. Atomic Energy Commission, at the Boston Fire Department Drill School.

The program was cosponsored by the Boston Fire Department, Chief Leo C. Driscoll, and Nuclear Metals, Inc. of Cambridge, Mass., and it is said to be the first held in New England.

Popularity of the program is evidenced by the fact that representatives of fire departments from the following Massachusetts cities were in attendance: Haverhill, Athol, Fall River, Cambridge, Belmont, Chelsea, New Bedford, Waltham, Attleboro, Somerville, Newton, Quincy, Springfield, Boston, Lexington, Everett, Worcester, Watertown, Lawrence and Fitchburg. Also present were representatives from the Manchester, N. H., Fire Department; the Department of Public Safety of the Commonwealth of Massachusetts; the deputy fire marshal of Montpelier, Vt.; the supervising state fire inspector of Augusta, Me.; and representatives of the Massachusetts State Police, U. S. Coast Guard, Boston Police Department, Boston Edison Co., and a member of the Canal Zone Fire Department.

Massachusetts Governor Foster Furcolo and the State Atomic Energy Commission's coordinator Ray Rigney discussed the program with Boston's Fire Commissioner Francis X. Cotter; Chief of Department, Leo C. Driscoll, and Mr. Santangelo of Nuclear Metals. The discussions brought forth strong sentiments for maintaining a progressive program of this nature.

Upon completion of the program, those in attendance possessed the necessary qualifications, it is believed, to permit them upon their return to their own departments to furnish instructions in the basic operating procedure to be followed while fighting fires involving the presence of radioactive materials.

Field demonstrations in the extinguishment of fires involving radioactive materials were held at the fire school as part of the course, and practical use was made of radiological monitoring equipment during the operations.

Department records hazards

The Boston Fire Department, fully aware of the problems involved in the

peacetime use of atomic energy, has on file the locations of all firms within the city limits which use, store, or handle radioactive materials and a standard operations procedure has been developed by the department with the cooperation of these firms. This procedure will be put into practice in the event of fire or other emergency at these locations.

Program of three-day course

Considerable publicity was given the program by press, radio and television, a feature being a panel discussion participated in by Commissioner Cotter, Chief Driscoll, State Coordinator Rigney and Safety Engineer Santangelo, with Art Gardener of WBZ-Radio as moderator.

The exchange of information on the topic "Atoms in Industry" brought out a number of points of interest to both public, industry and fire fighters. All new industrial processes pose scientific problems for the fire department, it was explained. The advent of atomic energy into the industrial stream of our nation is only one more process in a long line with which the fire fighter has had to familiarize himself.

Granted that the problems posed by radioactive materials are unique, and under some conditions extremely hazardous, it was brought out that they are being recognized, diagnosed and solved. The fire service, aided by industry and the government, is developing equipment and procedures to further achieve this end.

Fire Commissioner Francis X. Cotter explaining operation of Geiger counter to Governor Foster Furcolo. Left to right are Safety Engineer John Santangelo of Nuclear Metals, Inc.; Francis L. Brannigan, safety engineer, AEC, who conducted the course; Governor Furcolo; Commissioner Cotter; Chief Leo C. Driscoll and Assistant Chief William A. Terrenzi
—Boston F. D. photo

Other panel discussions were held, one centering around the duties and responsibilities of fire fighters, and the problems they face on the ground, the type of service they render the public, and the dangers they encounter in providing this service. Assistant Chief William Terrenzi of the training division was paired off with Commissioner Cotter on one of these panels.

The Boston Fire Department took advantage of the opportunity afforded by this radiological program, and the panel discussions, to develop an excellent case publicity-wise for itself and its operations. In a word, according to Chief Driscoll and his aides, it is not enough to develop and execute a comprehensive course in radiological training, the progressive fire department should go out to "tell and sell" the public, as well as its own personnel, on the enterprise. □□

Radiation Hazard in Fire Fighting

Outline of Atomic Energy Commission Course

I. Introduction to Course

II. Radiation

1. External radiation
   - A. Origination
   - B. Protection against
     - a. Time
     - b. Distance
     - Shielding
   - C. Permissible Radiation Dose
     - a. In industry
     - b. Emergency situations
       - In industry
       - In wartime
   - D. Instruments
     - a. Geiger counters
     - b. Ionization chambers
   - E. Monitoring Devices
     - a. Film badges
     - b. Dosimeters
2. Internal radiation
   - A. Origination
   - B. Protection against
     - a. Masks
     - b. Subsidiary precautions

III. Prefire Planning

1. Inspection and report
   - A. State health departments
2. Fire fighting operations
   - A. Water Fog
   - B. Ventilating system

IV. Radiation Machinery

1. Radiation
   - A. High level
2. Cooling oil
   - A. CO_2 systems
   - B. Other means of extinguishment
3. Electrical equipment
4. Radioactive target
5. Paraffin
   - A. Vapors
6. Filters
7. Flammable solvents

V. Isotope Laboratories

1. Hospitals, universities, research centers, industrial centers
2. Fire Fighting Operations

VI. Isotope Shipments

1. Air express, railway express, U. S. mail
   - A. Presence of lead
2. Transportation fires

VII. Uranium Metal

1. Natural
2. Enriched

VIII. Fissionable Materials

1. Uranium
2. Plutonium
   - A. Use of water generally prohibited

IX. Atomic Energy for Power

1. Liquid metals for heat transfer
   - A. Extinguishing agents

X. Flammable Solvents

XI. Strippable Coatings

Extinguishment of fires in natural uranium chips was demonstrated at the Fire School by Mr. John Santangelo of Nuclear Metals, Inc. The class also took part in seeking radioactive sources, under actual fire conditions in one of the structures, by use of Geiger counters.

WHAT'S NEW

Among the Manufacturers

- products
- processes
- personalities

Link Radio Acquired by Young

L. A. Young Spring & Wire Corporation has announced the purchase of the assets and manufacturing rights of the Link Radio Corporation of New York City.

N. D. Ely, president of L. A. Young, said the Link manufacturing operation will be moved to the company's Gonset Division which produces communications electronic equipment in Burbank, Calif. Mobile radio products will be marketed under the new trade name of "Link-by-Gonset."

GE Literature Offer

General Electric Company's Communication Products Department, Syracuse, N. Y., has published a new 16-page brochure on two-way radio for business, industry, public safety and military applications, covering such matters as how far the user can talk, licensing, dependability of equipment, and engineering. Write to the company and ask for ECR-479.

Ward LaFrance Promotions

Expansion and reorganization of the Sales Department of Ward LaFrance Truck Corp., Elmira, N. Y., has been announced by F. N. Tracy, president.

E. L. Decker has been appointed manager of customer services and will be in charge of repair services and parts. He was formerly sales manager for fire apparatus.

Edward F. Walsh has been appointed sales office manager. He was formerly assistant fire apparatus sales manager.

Edson W. Smith has been appointed product development department manager. He was formerly in the engineering department.

General Detroit Renamed

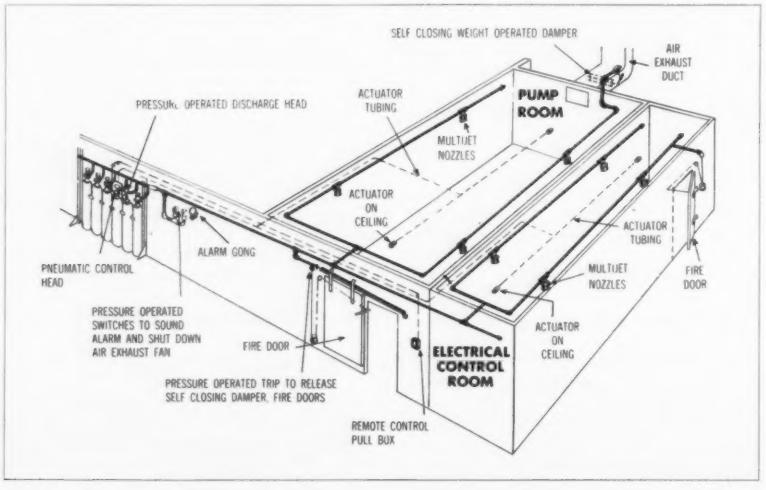
The General Detroit Corporation, manufacturers of fire extinguishers and allied products, announces a change in name to The General Fire Extinguisher Corporation effective September 1st, 1957, according to R. L. Braden, president.

Kidde Announces CO_2 Protection for Pump Stations

With more and more pipe line operations utilizing unattended pump-relay stations, fire safety for these stations has become a primary consideration. The accompanying diagram, prepared by Walter Kidde & Company, Inc., 633 Main Street, Belleville 9, N. J., shows a typical pump station comprising a pump room and an electrical control room.

Should fire flash in either space, rate-of-temperature-rise or fixed temperature fire detectors automatically actuate six 75-pound cylinders of carbon dioxide. The inert gas under its own pressure is discharged from Multijet nozzles and floods the two spaces. A sufficient volume of carbon dioxide is introduced to reduce oxygen to a degree insufficient to support combustion. The fire is smothered in seconds.

Built into the piping are pressure-operated switches and trips which are actuated by the passage of carbon dioxide and cause doors to close, ventilation to be secured, and sound a local alarm—all automatically. They can also shut down machinery or electrical equipment and sound alarms at distant points. The pull box outside the station permits the system to be actuated manually.



Safety First Granted Approval

Safety First Products Corp., Elmsford, N. Y., has announced that U. S. Coast Guard approval has been given to its Safe-T-meter dry chemical fire extinguishers. These extinguishers with Underwriters' Laboratories labels are now authorized for marine installations where Class B and Class C fire hazards exist.

El-Tec System Demonstrated

The first demonstrations of stoplight radio interconnection using El-Tec electronic traffic control system, were held recently in Los Angeles and San Francisco before California Civilian Defense officers; police, fire, and emergency hospital officials; and traffic and safety engineers.

The new electronic traffic cop is manufactured by Electronic Protection, Inc., a subsidiary of Standard Coil Products Company, Inc., Melrose Park, Ill. El-Tec combines Civil Defense evacuation functions with radio control of stoplights from moving police, fire, or ambulance vehicles, as well as regulation of all metropolitan area traffic lights under normal traffic conditions. The newly developed equipment is adaptable to present signal installations.

Everson-Ross Moves

Everson-Ross Co., Inc., manufacturer of badges, has moved its offices and plant from 88 Chambers Street, New York City, to enlarged quarters at 55 Vandam Street, New York 13, New York.

Fairbanks, Morse Changes

A number of personnel changes have been announced by Robert H. Morse, Jr., president, Fairbanks, Morse & Co., Chicago, Ill.

Page S. Procter, manager of the company's New Orleans branch, is retiring effective January 1, 1958. He will be succeeded by W. F. Wahlenmaier, manager of the Portland branch.

Continued on page 1152

Just how much better is

EUREKA

Multiple-Woven

than ordinary Fire Hose?

EUREKA's exclusive *multiple-weaving* process, employing filler cords of "Dacron"*, produces top-quality fire hose with these outstanding advantages:

- 50% stronger—withstands 600 pounds pressure,
- Weighs one-third less,
- More flexible—handles easier,
- Takes 33% less space,
- Permits more hose to be carried,
- Dries more quickly,
- Provides maximum safe service life,
- Affords no space between jacket plies to collect dirt and water,
- Smooth-interior ply assures highest nozzle pressure.

Long-time users of Eureka Multiple-Woven hose know that the secret of true economy lies in buying the *finest* . . . not the cheapest!

* Du Pont's polyester fiber

"For greater protection to life and property"

EUREKA FIRE HOSE

Since 1875, Specialists in Manufacturing Circular-Woven Rubber-Lined Fire Hose

1 Market Street • Passaic, New Jersey

Division of **United States Rubber**

Spectacular High Fire Simple Hydraulic Problem to Fire Fighters

Cutting torch lights off midtown Manhattan skyscraper blaze

DENIZENS OF MANHATTAN'S midtown section got a thrill, and some of them stiff necks, watching members of two engine and one ladder company subdue a spectacular high fire atop the 38-story Commerce Building, 155 East 44th Street, at Third Avenue, during the noon rush hour, on October 16th. But what was to the gauping spectators a wide-screen spectacular, proved to be only a "headache in hydraulics" to the fire fighters—and not so painful a one, at that.

Manhattan Fire Communications Office received 44 telephone and four box alarms for this flareup within the space of a few minutes, as flames enveloped a wooden and metal-sheathed structure housing an air-conditioning unit at the topmost point of the big office building.

At 1:04 p.m., Engines 21, 65, 16 and 54 and Ladders 2 and 7, together with the chiefs of the 8th and 9th Battalions, rolled out of their stations to Box 806, Third Avenue and 44th Street.* As they rolled, they heard their radios transmit a special radio report to the chief of the 3rd Division (who normally does not respond on that box) that already 15 calls had been received at fire alarm headquarters, for the blaze. Whereupon, Deputy Chief John Depetrie and his aide, Fireman William Foley took off from their quarters on West 31st Street.

It was one of those fires that can be seen better from a distance than close up. The responding forces converging on the "Vesuvius" knew at once what they were up against, and the crews had the flaked lengths of hose, and their various tools in hand almost before their rigs had ground to a halt. They needed no orders but headed for the elevators, while the driver-operators of Engine 21 and 65 got busy with their heavy suctions (no "pony" sleeves would do for this fire!).

Acting Battalion Chief Bernard Wynne and his driver Thomas Calvin of the 8th rolled in with Engine 21 and Ladder 2. He, too, had been tipped off en route, by radio about the fire. To his aide he commanded "Report arrival to communications. Get an engine on two of those standpipes; send truckmen to all floors near the roof to alert people there. Start 'em down the stairs—no elevators!"

Aide Calvin grabbed the mike: "Battalion 8 at Box 806," he reported. Then he hustled to order 21 to hook up to a hydrant near the southeast corner of the building on Third Avenue. Ladder 2 pulled in behind, as its men hiked for the elevators with the gear carried by all men reporting for action in such fires. Engine 65, which had followed behind the acting chief, hooked to another standpipe connection on 44th Street. Its crew entered from that thoroughfare while those of 21 came in from Third Avenue.

Elevator waiting

The building staff, appraised of the fire, had an elevator waiting, and quickly the first load of men and equipment shot skyward. Acting Chief Wynne had ascertained from the building personnel where the highest standpipe outlet was located. He was told the 36th floor, and he went aloft with the crews, ordering them to connect to the manifold on the roof at the floor. The crew of Engine 21 under Lieutenant William Kurett and those of 65 captained by James Fleming, hooked their 2½-inch lines to the outlet and stretched up the tower stairs to the 38th floor and out onto the narrow 10-foot passageway that surrounded the tower, upon which was located the blazing structure. The hose lead-ins were each three lengths of 2½-inch fitted with 1⅛-inch control nozzles.

Acting Chief Wynne, first on the roof, sized up the fire, which was plenty hot. He found flames involving a shed-like structure 18 x 20 x 28-feet, which had housed the air conditioning cooling system, and which was being removed by contractors. Meanwhile, operators at the two engines had opened up their gates (after each of them had checked on the approximate height of the big structure). Water was waiting aloft for the fire fighters, as Chief Wynne called for it.

Division Chief Depetrie, followed by Foley, the latter carrying a walkie talkie—with which all New York Fire Department Division Chiefs are equipped—reached the roof as the battle opened. From the division head went the message to Communications: "Chief of the Third Division at Box 806. Fire in the Commerce Building, 155 East 44th Street, 38 stories, 100 x 100. Fire on roof, air conditioning and shed. Using two and one; will hold."

Down below, the pump operators of Engines 21 and 65 compared notes and pressures. The Ward LaFrance 750 of 21 was turning up 1500 rpm at about 350 psi (pressures varied as lines were shut down and shifted). Up aloft, Acting Chief Wynne estimated he was getting about 250 gpm out of each line. A burst length on the line of 21 temporarily held up that crew's operations, but not for long. Over Fireman Foley's radio, pressures were ordered upped (or lowered) as required.

Firemen handicapped

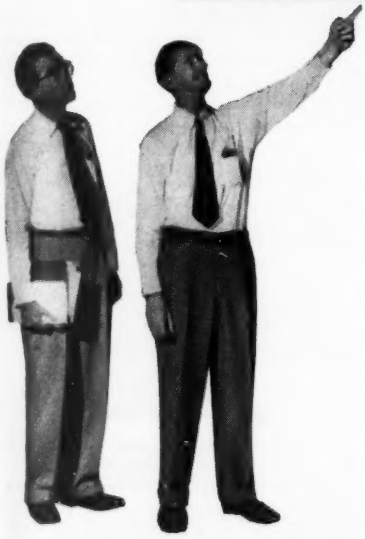
The fire itself posed one or two special problems for the fire fighters. One was the 10-foot space between tower and building line which left little room in which men had to work their lines. On the northwest side of the structure was a straight drop of over 400 feet without setback. At the outset, fears were felt that the cold water of streams, hitting the red hot metal sheeting and rivets still adhering to siding, might cause pieces to fly over the parapets. Therefore, first water was directed at the base of the fire. A few dashes, and then the spectacle was over. There remained only the tedious but painstaking overhauling and the picking up.

Two firemen were injured in the action, neither seriously. One from Engine 65 suffered a fall on the stairs and another from Engine 26 (detailed to 21) received a foot injury when hit by a charged line.

Before the division chief left, he checked with Acting Chief Wynne. Both suspected this was another cutting torch fire and so it proved to be. The results

Continued on page 1157

* Assignments to Box 806, were revised only a day before this fire, following the closing of the station of Engine 8 and Ladder 2 on East 51st Street. Ladder 2 was quartered with Engine 21; Engine 8 went to double up with Engine 39 on East 68th Street, and the chief of the 8th moved in with Engine 65 on West 43rd Street. Engine 54 was designated and substituted for Engine 8.



KILL RECORD VAULT FIRES FAST

with a Kidde automatic carbon dioxide fire extinguishing system . . . the fastest, safest 'round-the-clock fire protection you can buy. At the first hot breath of fire, Kidde's rate-of-temperature-rise actuators trigger the system. Instantly, clean carbon dioxide smothers fire, vanishes into thin air. Leaves no mess. The Kidde system features all operating parts completely enclosed for safety. No falling weights, no clumsy mechanical triggering methods. Pressurized, no outside power needed. Visual indicators to show if system is set or released. Easy testing of all operating parts. No parts to replace after operation or test. For more information write for Kidde's automatic carbon dioxide fire extinguishing systems booklet today.

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Walter Kidde & Company, Inc.
1133 Main St., Belleville 9, N. J.
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FALSE ALARMS

The Proby Punster

A careless young girl in Racine,
Washed her tresses in crude kerosene;
But one day, alas,
She went too near the gas,
Since that time she hasn't benzine.

The ladies auxiliary was having its annual gadtogether. We overheard two of the gals in confidential conversation: "You know I wouldn't say anything about Lizzie unless I could say something good. And, Oh Brother, is *this* good!"

Plebe—"I'm going on a diet. Guess if I skip a few meals I'll feel and look a lot better."
Pal: "Yeah, I'm broke, too."

H. I. Phillips said: "And there's the Russian song "Vodka hell do we care?"

Murphy hurried into the pub and said to the bartender: "A pint quick, before the row starts."

He gulped that down.

"Another pint before the row starts."

He'd got to about the bottom of that pint, when the bartender asked: "What row?"

"Sure, and I've got no money," said Murphy.

The most unusual salesman he ever met, claims Herb Shriner, is a fellow who made a modest fortune selling lightning rods. Suddenly he lost interest in his work, however. He got caught in a storm with a bunch of samples in his arms.

In Days of Old—

Examiner to applicant: "Have you any social standing?"

Applicant to force: "Not a drop!"

"I suppose if I was some dizzy blonde, I'd get carried down!"

German-English Glossary (?) of Planes and Missiles Terms

Several of the demon clippers sent us these selections from a German-English glossary of terms, originally published in the "AiReporter" house organ of the Garrett Company, of Los Angeles. Here they are—written on the typenklakker.

Control system: Das pullen-und-schoven werke
Rocket engine: Fireschpittel mit schmoken-und-schnorten
Liquid rocket: Das skwirten jucenkind firenschpitter
Celestial guidance: Das schruballische schartgazen peepenglasser mit komputen-rattracen schteerenwerke
Pre-set guidance: Das senden offen mit en pattenbacker und fingers gekrossen schteerenwerke
Warhead: Das laudenboomer
Nuclear warhead: Das eargeschplitten laudenboomer
Hydrogen device: Das eargeschplitten laudenboomer mit ein grosse holengraund und alles kaput

Departments responsible for the above vibrations:
Management: Das ulzerenbalden grupe
Project engineer: Das schwettoudter
Lab technicians: Das pullenaparten grupe
Inspection: Das huffenpuffen grupe
Computing: Das schlidenruler grupe
Security: Das schnoopen bunche
Contract administration: Das tablegepaunder grupe
Preliminary design: Das whizkidden grupe

The Little Woman Sympathizes

Private Playpipe was trying to explain to the little woman just how-come he got hurt on the job. But it didn't work. "If you'd kept falling, you'da been all right," she interrupted, "but no, you had to stop and break a leg."

Out L. A. way there's a sign in a Sunset Strip eaterie: "We do not serve women at the bar. You have to bring your own."

"She's a virtuoso, they tell me."
"Aw—don't let 'em kid you—I've been out with that baby!"

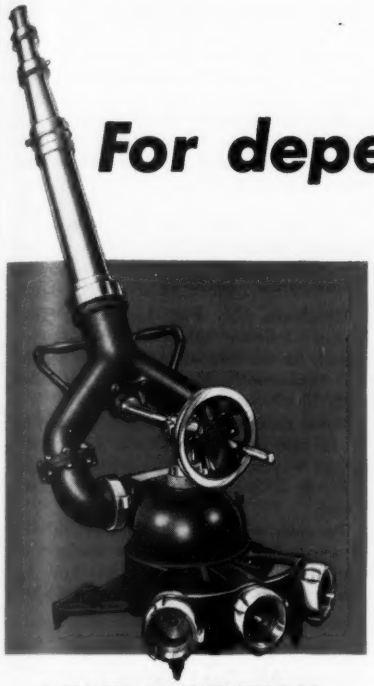
Oldie—But Good

A pair of Texas recruits were taking their first plane trip cross-country. They landed in St. Louis and a little red truck dashed out to refuel the plane. At Cleveland the second stop, a little red truck dashed alongside the plane as it landed. The third landing was at Albany and the same thing happened.

The first recruit looked at his watch and turned to his companion. "This plane," he observed, "is sure making wonderful time."

"Yep" answered the other, "and the little red truck ain't doing so bad either."

For dependable fire fighting...



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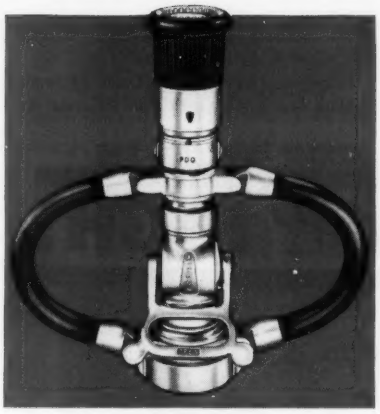
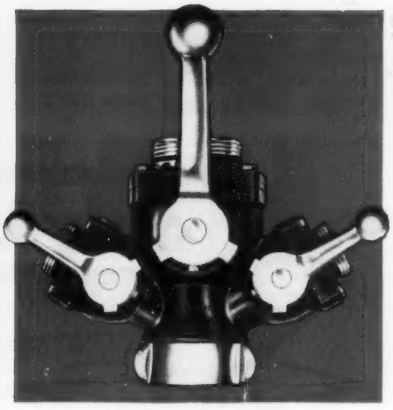


AXIAL PLAYPIPE WITH PDQ-X NOZZLE

Revolutionary new design. Shutoff between Playpipe handles. Shorter, more compact, and better balanced. Large gallonage — equivalent to 1" tip. Removable tip simplifies addition of 1½" lines for overhaul and clean-up. Style #1233.



WATER THIEF

Short, light, compact. Use with preconnected lines, on a hydrant, on discharge gate of pumper, etc. Permits addition of 1½" lines, or removal of 2½" without shutting down. Quarter turn valves with adjustable seat. Style #273.

"HY-DRAIN" HYDRANT PUMP

A fast, durable, positive displacement, double action, piston pump capable of emptying the average hydrant in less than a minute. Self-priming, Universal base with wing nut permits attachment to any square or pentagon hydrant nut.

Style #525B.

HEAVY DUTY ROCKER RING® COUPLING

Heavy duty, drop-forged, "Rocker Ring" coupling. The toughest, strongest made. Available in 1½" and 2½". Higbee thread and Higbee indicators. Style #92.

PDQ-X FOG NOZZLE

The top of the PDQ. No ball shutoff. Same rugged, all cast brass construction — no tubing. Molded rubber bumper. Positive stream selection, by feel or sight. Nozzle has its own shutoff. Available in 1½" and 2½" sizes.

AKRON BRASS
FIRE FIGHTING EQUIPMENT

AKRON BRASS MANUFACTURING CO., INC.
WOOSTER, OHIO

THE WATCH DESK

overhauling the firemanic news of the day

Deer Horn Alarm

The new chief of the Petoskey, Mich. Fire Department is Vint Thompson. He started right off in the job by breaking some sort of a record. Thus far, he's the only fire chief who ever turned in a fire alarm by deer horns.

It's a kinda switch on the fire horn technique. And it all came about July 24 last while the Chief was giving fire headquarters a sort of house cleaning.

While Vint was in the act of moving an old mounted deer head to a new location in the fire department building, one of the points of the rack of horns hooked the fire siren starting button.

Result was the city's fire siren let loose a blast heard all over town. At least six fire fighters dropped their work and came on the double for the station. All of 'em were puzzled that their private alarms failed to sound at the same time the siren let go.

Sirens are sensitive things. So are some fire fighters. Now Chief Thompson wonders if his faithful crew should be entitled to their pay for a "dry run."

—Thad Brown

only 8¼" HIGH!

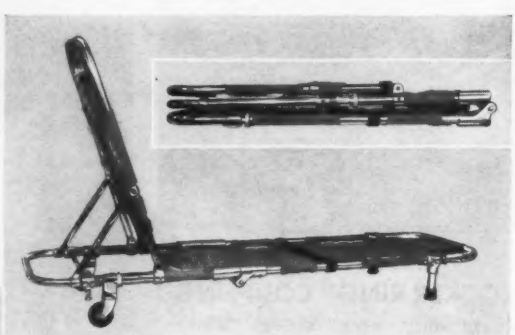
NEW

Washington Ambulance COT!!

Now you can get an ambulance cot that is REALLY LOW — only 8¼ inches high — the perfect answer for cars that have less head room, and for overhanging stretchers. The new Washington model 21-L is of special value for heart cases, and other patients who must be kept in a sitting position. Washington's famous top-quality craftsmanship is apparent throughout this new model cot with such features as sturdy, rigid construction . . . highly polished aluminum tubing and castings . . . very lightweight yet strong . . . trigger release side rails . . . adjustable back rest with nine-position squeeze-lock adjustment. It always pays to choose Washington for the newest and best in all emergency room or vehicle requirements.

ADJUSTABLE-BACK EMERGENCY STRETCHER MODEL 9AB

Four adjustable positions on back rest, folds to only 4½ inches high! One of Washington's complete line of folding emergency stretchers for every need, in every price range.



NEW PUSH-TYPE COT FASTENER MODEL 3A

This new and improved cot fastener holds cots securely in station wagons and other types of emergency vehicles. Washington makes four other models of cot fasteners, to meet every need for any kind of vehicle. Tell us the make and model of your vehicle, and we'll recommend suitable fasteners.

See your jobber or write for FREE catalog!

Washington Products Co.

WASHINGTON COURT HOUSE, OHIO

"Illustrated" Lectures

Oklahoma City Fire Lieutenant Tom Logan delivers safety lectures twice weekly at the city airport. Twice he has had opportunity to dramatize his talks with "live" (or nearly so) examples.

Some time ago while advising what to do in case of a heart attack, Lieutenant Logan was notified that a passenger had suffered a heart attack in the waiting room.

Recently while speaking on the subject of expanding gases and the dangers of explosion, the refrigeration gas tank located in the airport basement exploded.

Firemen All (Sun) Burned?

Out Eureka, Calif., way, firemen of nearby Blue Lake answered a fire alarm only to discover the fire in question was in the Blue River. Not literally, but figuratively. Actually, it was on a sand bar in the river, the Mad River, to be exact.

What to do? Well, the resourceful fire fighters located a stray raft, mounted a portable pump and gear on it, and set sail for the fire. Mebbe they paddled a bit, but eventually they made it. However, before they got to the blaze most of 'em had to shed their clothes and swim the river.

It took some time to reach the fire and get water on it. Then it took over three hours to extinguish the blaze, which was burning in logs, driftwood and debris on the sandbank. But the brothers made it.

The luckiest guy in the gang was the one who was delegated to remain behind to "discourage peeping Toms" as the report hath it.

We've heard a lot of sidewalk chiefs, but this is the first record we've seen of peeping riverside Toms.

Hot Off the Tape

Battle Creek, Mich., firemen sped to the rescue of 11-year-old Richard Mathiak's tiny boat when Richard lost it on a lagoon during a family outing. The Brothers were obliging because it was Richard's first day out of the hospital in many weeks after two operations. . . . In Milwaukee, authorities sought arson and murder charges against a teen-age boy who confessed setting a fatal fire "to get the attention" of a young girl. The 17-year-old youth touched off a fire at the home of Frank Haecker, which trapped Mrs. Bernice Bonner and seriously injured her husband Robert, tenants of the second story. Haecker's daughter, who

was the innocent object of the pyro's attention was anything but impressed. . . . Fires in late summer destroyed more than a million acres of forest and muskeg northwest of Anchorage, Alaska. . . . The State Conservation Department of New York presented Suffolk County with a bill for $5,500 which it is said represents half of the state's cost of fighting a series of forest fires which burned out some 4,000 acres of scrub oak last spring. . . . Racine, Wis., Fire Department officials declared their report of a completely destroyed home with damage of only $10 was absolutely correct. The "home" was a robin's nest in a neon sign outside a tavern, from which a patron turned in the alarm when a short circuit gave off sparks. . . . In Indianapolis, Ind., firemen rushed into the burning Richard Buckler home, September 5th, in response to Mrs. Buckler's frantic cries to "save my baby." Inside they found only a dead parrakeet. The Bucklers were charged with disorderly conduct.

Firehouse Five' Arsonists

In Silver Springs, Md., five teen-agers who set off fires and explosions in homes because they were "looking for something to do," have drawn a punishment that gives 'em that something.

Juvenile Court Judge Alfred D. Noyles has ordered them to spend two nights a week during the school year, shining up the fire engines and doing other chores in the Silver Springs fire house.

The five, police say, who came from well-to-do families, also were put on probation, required to pay damages and restricted in leaving their homes.

Judge Noyles said preliminary estimates of the damage to four vacant houses set afire ran around $7,400. The dynamite blasts, mostly abortive, caused no injuries but shook up occupied homes.

Padres Prove Pals

A Protestant clergyman went to the aid of a Catholic priest in Mount Clemens, Michigan September 11th last in saving the consecrated Host and valuable altar furnishings from the tabernacle of a burning Catholic church.

The Rev. Wilbert Gough, pastor of the Gilbert Memorial First Baptist Church of Mount Clemens, was one of a number of volunteers who joined the priest, the Rev. Paul C. Neenan, in dashing into the burning building moments before flames toppled the 60-foot church steeple.

They removed the ciborium containing the Eucharist from the church altar, along with other furnishings.

The 75-year-old brick church, in downtown Mount Clemens, was destroyed, with loss estimated by Father Neenan at $300,000. The adjoining St. Mary's grade and high school was damaged. Some 1,000 pupils in the four-story brick school were evacuated safely.

The fire reportedly started while workmen with torches were removing paint from the outside of the church.

INDIAN

FIRE PUMPS Complete Your Truck Equipment . . .

W. S. Darley & Co., Chicago, Ill., built the Champion Fire Apparatus truck shown above and delivered to the Addison Volunteer Fire Department. It is equipped with **INDIAN FIRE PUMPS.**

Famous **INDIAN FIRE PUMPS** are standard equipment on more and more new fire trucks. They have no equal for fighting so many types of small fires. They belong on *your* trucks, too.

"Discarded Soda Acid Extinguishers for INDIAN FIRE PUMPS"

"Over a year ago we discarded soda and acid type extinguishers and equipped with your **INDIAN FIRE PUMPS** which are giving great satisfaction with everyone well pleased.
"We use **INDIANS** on fires that look impossible for a small pump to handle but they have always held the fire until a line could be laid and ***In most cases*** have the fire out before the line is laid."

H. B. Wells, Fire Chief, Newbury, S. C.

NO. 90 INDIAN SLIDING PUMP TYPE

No. 80 INDIAN LEVER TYPE PUMP and HANDLE

Both types of INDIAN FIRE PUMPS are approved by UNDERWRITERS' LABORATORIES, INC.

Fire Chiefs say **INDIANS** are "worth their weight in gold" and call them the "one man fire department."

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the round table

discussion of current fire department and fire management problems

Sprinkler and Standpipe Procedures

SPRINKLER SYSTEMS have been termed by some authorities as the "fireman's best friend." The record of sprinkler performance over the years has been such that the same term could well be used in reference to the owners and occupants of buildings so equipped.

There are, however, certain limitations and failure possibilities that alert fire officers must recognize when dealing with fires in sprinklered buildings. The major considerations have been the subject of several bulletins issued by the National Board of Fire Underwriters and may be summed up as follows:

1. In planning strategy for fires in sprinklered buildings, it should be borne in mind that the system piping is usually of such size that the fusing of a large proportion of heads may overtax the system and result in inadequate flow from the individual heads.

2. Fire department pumping operations in the neighborhood may tend to reduce water pressure and prevent adequate supply to a building system.

3. The fire department siamese connection usually connects above the shutoff valve and it is generally possible to supply a system even if the main valve is closed.

From the foregoing it is evident that fire department strategy should take into account methods of augmenting or implementing sprinkler systems located in buildings of a community.

The National Board of Fire Underwriters considers the subject so important that it reviews the general policy of a department in relation to such practice when conducting a grading inspection and assesses deficiency points when it is found that fire department methods are unsatisfactory.

Many buildings are constructed with standpipe systems and in most cities this is a requirement when a building exceeds a specified height. It is evident that it is possible to eliminate much of the labor involved in stretching hose over ladders and up stairways if use is made of the

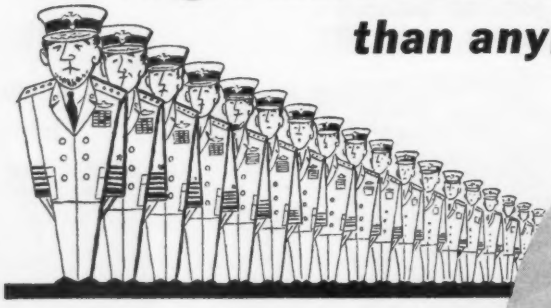
THIS MONTH'S QUESTIONS

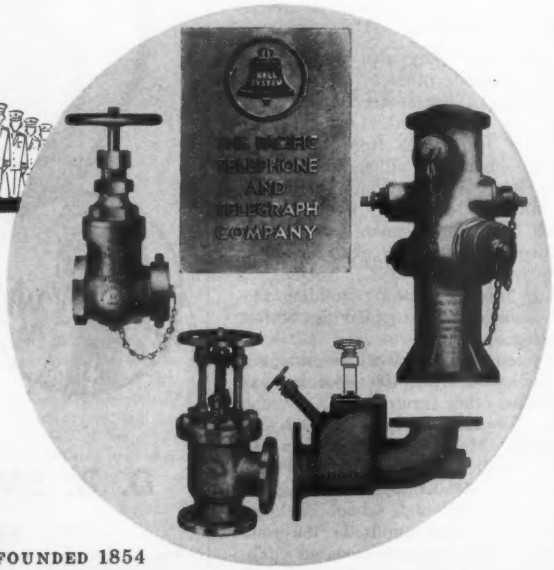
Do you connect to outside siamese of sprinkler systems or standpipes regardless of size of fire? If so, is this the first line stretched or a later line?

What size hose is used for outside connection (2½-inch, 3-inch, etc.)?

On inside fires do you remove standpipe hose line and substitute your own? If so, in what form is this hose carried (accordion fold, donut, etc.)?

We've got more **BRASS** (and bronze) than anybody! M. Greenberg's Sons





Manufacturers of a complete line of bronze products including valves and fittings for Navy, Maritime and industrial use; fire hydrants and industrial valves approved by Underwriters Laboratories, Inc. and Associated Factory Mutual Fire Insurance Companies; plumbing specialties, plaques, letters and Josam drain products.

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systems when fighting fire in a building so equipped.

To obtain representative fire service opinions on the two subjects, FIRE ENGINEERING asked fire chiefs what their procedures are in situations concerning both sprinklers and standpipes.

Judging from the replies, the fire service recognizes the importance of sprinklers and of the necessity for supplementing them with adequate standpipe connections. Fire department procedures in utilizing standpipe systems are governed to a great extent by the conditions found upon arrival at a fire.

As will be shown, the general practice with building standpipes appears to be to replace house lines with fire department hose except in instances where hose threads are not compatible.

Readers are invited to submit their remarks on these subjects which will be continued in the December issue. Address replies to Round Table Editor, FIRE ENGINEERING, 18th Floor, 305 East 45th Street, New York 17, N. Y.

Discussion of the Subject

Michael H. Lotz, Chief, Baltimore, Md.: Officer in charge of fire operations determines what line or lines should be connected to sprinkler siamese.

Usually the first line is stretched to seat of fire and later lines connected to sprinkler siamese, depending upon conditions. If a building is equipped with a standpipe and the fire is above the third floor, first company takes booster line and two rolled up sections of 2½-inch hose up stairway to floor of fire; second company connects to outside siamese and takes two rolled up sections of 2½-inch hose up stairway to floor below fire. Both companies proceed with extinguishment of fire.

Three-inch hose is used whenever possible.

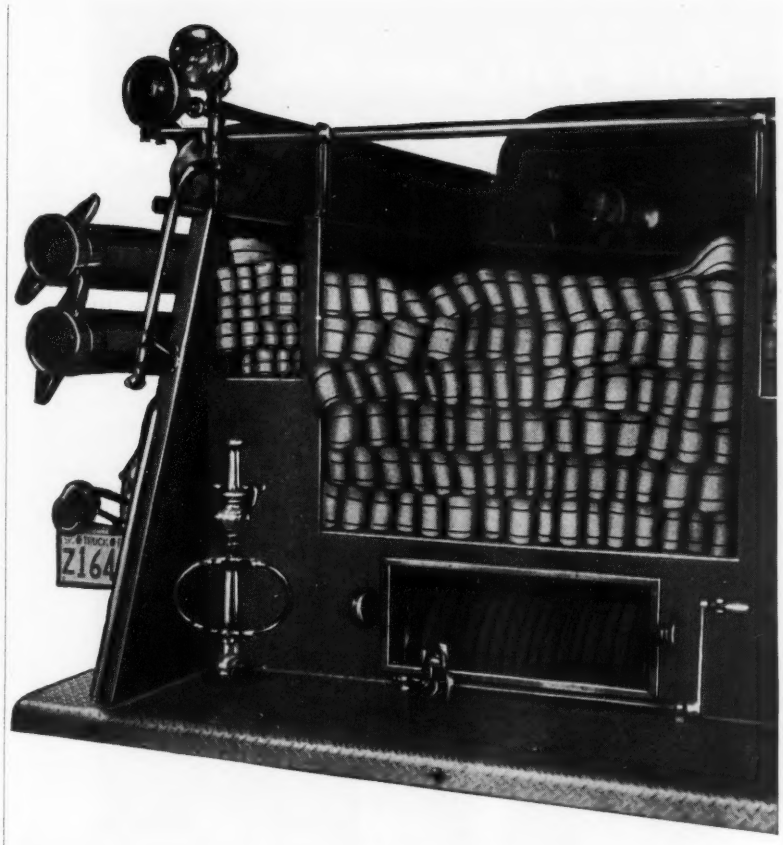
Standpipe house lines are removed and our own hose substituted. All engine companies carry two rolled-up (donut) sections of 2½-inch hose for inside standpipe operations.

Lewis A. Marshall, Chief, Providence, R. I.: This is a requirement of NBFU good fire fighting methods. The fire department not making the connection would be penalized for poor fire fighting operations.

We use 3-inch hose which reduces friction loss for easier pump operations.

We use a donut roll and are required to take two sections for connections from inside standpipe.

Hoyt M. Ayers, Chief, Birmingham, Ala.: We do not connect to siamese connections, except in the event of fairly extensive fire. Our first lines are usually diverted to sprinkler or standpipe. We



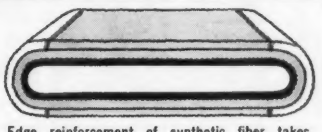
New Tuff-Edge® Hose defeats wear at the folds, where most failures begin

Here's a lighter weight, more flexible fire hose that stands up under the worst punishment of all—constant folding and unfolding! Longer life is built right in to Delaware Brand TUFF-EDGE HOSE by Quaker.

Reinforcement of the vital fold edges by 100% polyester filament gives TUFF-EDGE HOSE new high resistance to flexing, faster drying in folds and creases (where mildew formerly could start), maximum flexibility for more compact loading and racking.

TUFF-EDGE HOSE, testing at 600 lbs., is 15% lighter, 50% stronger than former high-quality cotton-jacket hose. Available in 50-foot lengths, in 1½" and 2½" diameters.

For complete information, write H. K. Porter Company, Inc.; Quaker Rubber Works, Philadelphia 24, Pa.; or Pioneer Works, Pittsburg, Calif.

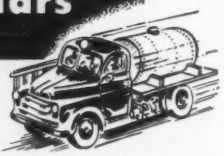


Edge reinforcement of synthetic fiber takes repeated folding without failure, dries fast, reduces weight, saves storage space. Patent applied for.

H. K. PORTER COMPANY, INC.

QUAKER RUBBER DIVISION

Build your own fire truck for a few hundred dollars

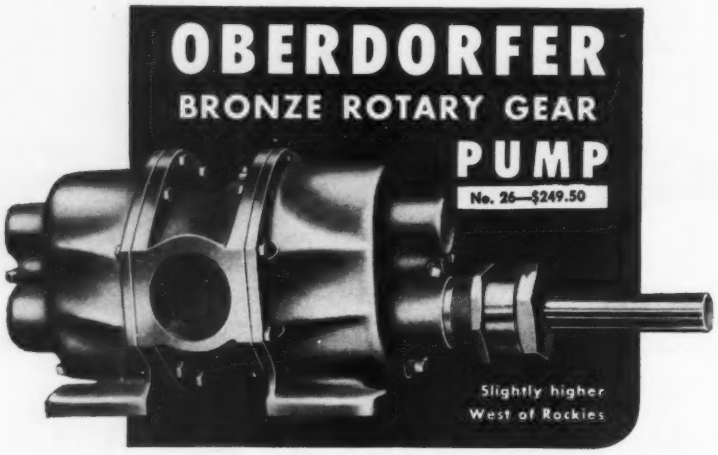


The time has come when rural fire protection should leave the "Fancy Dan" class so that every small community can do a real down-to-earth job of extinguishing fires rapidly, simply and inexpensively.

The nickel plate, red paint, gadgets and polish are good if you can afford them. But all you need for sound, economical fire protection is an Oberdorfer All Bronze Pump hooked up to the transmission of a dependable truck that carries a tank of water loaded with a good wetting agent.

Effective fire control starts just as soon as this outfit can reach its destination and a man can grab the nozzle end of the booster hose and get to the fire. The resulting penetrating stream of over 120 lbs. pressure is the fastest and most important phase of fire fighting.

Do you have a garage, a truck and a mechanic with a little common sense? We have the pump you need. Write for details.



PERFORMANCE DATA—No. 26 PUMP SHOWN ABOVE

Pump Shaft R.P.M.	Pounds Pressure	Hose Length and Size	Dry Suction Lift in Feet	Vol. in Gal. Per Minute
1600	120	500'—1½"	20'	150

For complete specifications of this and other Oberdorfer All Bronze Booster Pumps, and name of your nearest distributor, write:

FIRE PUMP DIVISION OBERDORFER FOUNDRIES, INC., Syracuse, N.Y.

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LEADING BRANDS, LARGEST Stock, LOWEST Price

SEND FOR OUR COMPLETE CATALOG M-200

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1355 South Flower St., Los Angeles 15, Calif.

automatically lay two lines to all dry standpipes.

Two and a half-inch hose is used.

On inside fires we always use our own hose. In a number of cases, we have had occupants adapt the standpipe inside connections to our 1½-inch hose. We use a donut roll.

Robert L. Catlett, Captain, Louisville, Ky.: We do connect to outside siamese connections. The line connected is the first line laid.

Two-and-a-half-inch hose is connected as a rule. Quads have 3-inch hose but they are in residential areas.

We remove inside standpipe hose and use our own. Each company carries as standard equipment a donut of 100 feet of 1½-inch hose packaged, to be taken into any and all buildings that have standpipe installations.

William H. Hawkins, Deputy Chief, Aurora, Colo.: The first line is connected to outside siamese, regardless of size of fire.

We use a 2½-inch hose.

We use our own line, which is carried in donut form.

E. E. White, Chief, Anniston, Ala.: Ordinarily, we do not connect to outside siamese unless the extent of the fire is checked. We might then consider using a later line or lines.

We use only 2½-inch hose.

We haven't had any occasion, as yet, to use house lines in our downtown buildings or elsewhere. I would prefer the donut roll if we had to use them.

W. M. Andersen, Secretary, Milwaukee, Wis.: We connect to outside siamese. A later line is used.

We use 2½-inch hose.

We substitute our own line for inside fires, which we carry in donut form.

Raymond J. Daley, Chief, Chicago, Ill.: We connect the first line of 3-inch hose. We don't charge line unless there is a sign of fire or smoke.

We replace house line with 2½-inch hose carried in donut form, and equipped with a shutoff nozzle.

The engineer stretches this 3-inch line and the men lead out the working line.

E. Charters, Deputy Chief, Hamilton, Ont.: In the event of a fire in a sprinklered building, the second engine company, unless ordered otherwise by the officer in charge, shall stretch lines to the siamese connection of the sprinkler system. However, if in the opinion of the officer in command of the fire, the fire can be attacked more successfully or be controlled more readily by use of the sprinkler system on the initial attack, he shall order the first, or any subsequent arriving engine company or companies to stretch lines into the siamese connection to the system.

We use 2½-inch or 3-inch hose with 2½-inch couplings.

We use the standpipe hose but take our own hose into the building for extending or emergency use. The accordion shoulder carry and donut roll is used.

J. Coleman Miller, Chief, Auburn, Maine: Instructions are to connect to sprinklers if the fire is a working one. However, the first-due company attacks fire with preconnected 1½-inch lines. Second pumper takes hydrant and waits for orders to stretch in to fire or hook to standpipe.

Two-and-a-half-inch lines are used.

We depend wholly on outside lines from outside sources and feel it is quicker and more certain.

A. R. Lee, Deputy Chief, Concord, N. H.: We do not connect to outside siamese.

Two-and-a-half-inch hose is used.

We do not remove house line on inside fires.

Zenus Mathis, Chief, Atlantic City, N. J.: We connect to outside siamese. Both lines are stretched at practically the same time.

We use 2½-inch hose.

We sometimes remove house line and substitute our own, which is carried in donut form.

O. E. Boggess, Chief, Charleston, W. Va.: Our second pumper in stretches a dry line to siamese regardless of size of fire. Two-and-a-half-inch hose is our largest and the size we use for siamese connections.

Inside fire attacks are optional in regard to standpipe hose or our own. We use donut rolls.

On a going fire, we charge our line and use 100-pound pressure at the pump.

E. E. Moody, Chief, Albany, Ga.: We do not ordinarily connect to outside siamese. If we did, a later line would be used.

We use a 2½-inch hose.

We are fortunate to have enough hose to use on most of our standpipes. This is carried in donut form.

Ralph C. Williams, Chief, Bedford, Ind.: The size of the fire would depend on our making outside connections, in which case a later line would be stretched.

We use 2½-inch hose.

We do not remove standpipe house line.

F. C. Kelley, Chief, Jacksonville, Fla.: Our first due company has instructions to connect to the siamese connections, but only in the event that some indication of its necessity is apparent.

Two-and-a-half-inch lines are used in making the connection to the building siamese connection.

On inside fires we do use our own hose, which is carried in donut rolls.

William J. Barzycki, Chief, Blue Island, Ill.: We connect to the outside siamese of sprinkler systems and standpipes. This is a "must."

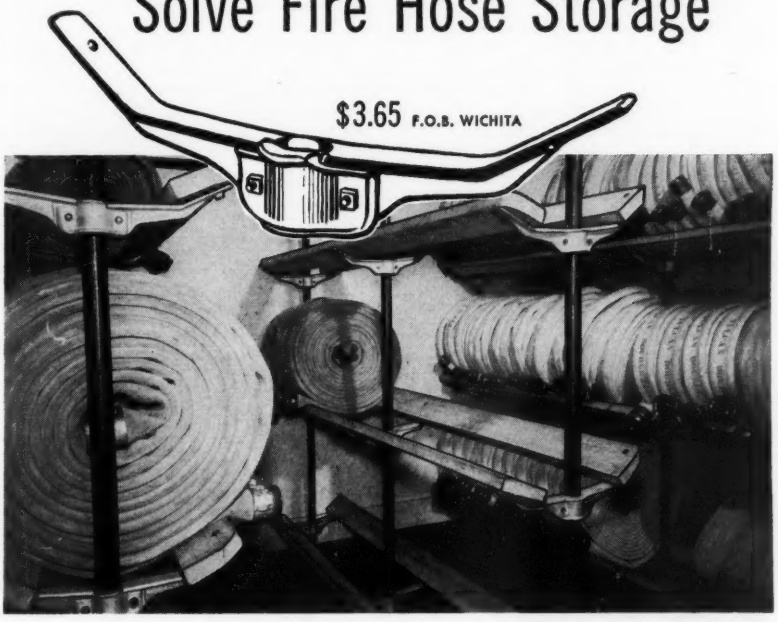
We use 2½-inch lines, which is standard size for siamese lines in the City of Blue Island.

On inside fires, we use the line off the truck company. It is carried as an accordion fold, not a donut.

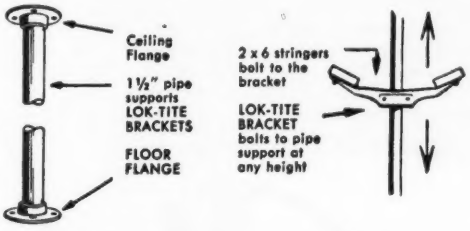
BRACKETS

Solve Fire Hose Storage

$3.65 F.O.B. WICHITA



Do it yourself . . with LOK-TITE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1½" pipe supports LOK-TITE BRACKETS
FLOOR FLANGE
2 x 6 stringers bolt to the bracket
LOK-TITE BRACKET bolts to pipe support at any height

Lok-Tite Brackets for storage racks provide correct ventilation, easy inspection for serial numbers, dates, and encourages good housekeeping practices. Make the most of your space by building sturdy low-cost storage racks with Lok-Tite Brackets. It's a perfect "do-it-yourself" project.

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Volunteer Departments:
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Please send me ____ brackets @ $3.65.
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- Simple to install
- Easy to adjust
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Among the Buffs

By Paul C. Ditzel

SO YOU THINK your home department or your buff club has everything. Has it got a Flugplatztankloschfahrzeug? If not, you ain't seen nothing.

Our good friend, Editor John L. Eades of the *Fire Protection Review*, ran a picture of this thingamabob in his latest issue. About the only way I can describe it is to liken the rig to a gasoline tank truck. It has three reels of hose mounted on each side, a number of discharge ports, too, and a railing around the top. A turret gun is mounted atop the cab whose front looks like a swollen Volkswagon. The apparatus has 14 tires, at least four more than any other self-respecting piece of fire machinery I've ever seen.

Editor Eades says this is "The World's Biggest" but he doesn't say biggest what except to give his typesetter a bad case of nervous tension by repeating the above Flug etc.

The rig is a Magirus Deutz airport tank extinguisher which the makers claim is the world's largest something-or-other. It has been delivered to Carrasco Airport in Uruguay in case anyone is of a mind to amble down to look the thing over.

The Flug carries approximately 1,760 gallons of water, 176 gallons of foam and about 2,000 pounds of carbonic acid. In 14 minutes it can release a 3½ per cent mixture of foam 2 inches high over an area of 2,860 square metres. Capacity is claimed to be sufficient for two feeder vehicles as well as for independent fire fighting. I'd like to see this thing on the Hollywood Freeway at five o'clock some night.

The same issue of Friend Eades clarion carries a story which will settle for all time, I'm sure, the constant debates you buffs have over who is slowest in turnout time. No matter how slow your favorite East Overshoe Department is in getting out of quarters they can't top the Methil, Fife, Scotland, Fire Brigade. I greatly admire Editor Eades' sense of humor (or is it humour?) and writing ability in reporting this incident:

"When the Inspector of Fire Services for Scotland visited Methil recently, he put through a test fire call and eight and a half minutes passed before the crew were ready to turn out.

"Fife Fire Area Joint Committee was told by Deputy Firemaster A. Simpson that the service was 'rather sparse of whole-time firemen.'

"Bailee J. Nocol, the chairman, points out that a report by Firemaster A. J. Greenslade showed that of 130 calls in Methil, there were only 31 satisfactory turn-outs. This, said the chairman, was not good enough in a town with a population of 20,000 and a high fire risk with docks and distilleries. He added that some of the retained men were miners and it was difficult for them to get up the pit in time. . . ."

To head off the usual spate of requests we get after mentioning *Fire Protection Review*, here again is their address: Bouverie House, Fleet-street, London, E.C. 4, and the subscription price is $3.75 a year. If you want to "ring them up" as we Sussexers say, their number is FLEet-street 3212. There is no waiting because they have 26 lines into their offices. Most of you will recall that FIRE ENGINEERING's good friend, Geoffrey F. D. Pratt formerly edited this excellent monthly magazine. He's now doing public relations work.

Back home once again, the stalwarts of New York's Third Alarm Association, 948 University Avenue, Bronx, N. Y., chalked up another good deed t'other night. And this action must go down as exemplary service above and beyond the call of duty. As reported in their pink-sheeted newspaper edited by Barclay G. McKeough and Al Schuman:

"Brother Frank Evans, returning from an "ALL HANDS" at 2:30 a.m., September 1st, came across Chief Rooney of the 13th Division and his aide, Fireman Treutlein, stuck with a dead battery in their rig. Brother Evans offered his help in the name of The Third Alarm Association and pushed them with his car to the quarters of Engine 270 at 121st Street in Richmond Hill, Queens. Frank then continued on home and left a very grateful deputy chief and aide thinking very good thoughts about The Third Alarmers."

News snoops in New York tell me the TAA'ers may perhaps be the first club in the country to put a tow truck in service rather than a coffee canteen.

"I go for a DRAGON® FIRE PUMP every time!"

Give a fireman a choice and he's sure to go for the Dragon Fire Pump —the one designed from *his* point of view.

Dragon Fire Pumps come *completely assembled*. And because there's no pump packing to dry out, they're always ready for instant action, even after standing idle for long periods. The special harness is not only easy to get into, but designed so the pump rides high where it can't throw the fireman off balance or interfere with walking.

Dragon Fire Pumps fight fire *and* fatigue! Just a few easy strokes of the pump lever gives the operator a *continuous* flow of water he can direct right where it does the most good. And a mere twist of the shut-off nozzle gives either solid stream or spray *instantly*. What's more, a fireman using a Dragon Fire Pump can take his hands off both shut-off nozzle and pump lever to use rake, shovel, or other tool.

Specify Dragon Fire Pumps and get the pump designed with the *firefighter* in mind.

VALUABLE DISTRIBUTORSHIPS AVAILABLE, WRITE TODAY.

Dragon FIRE PUMPS

now available in 2 models

No. 150-S—Stainless Steel Tank

No. 150-G — Galvanized Tank: Cold-rolled steel, hot-dipped galvanized after fabrication.

All units equipped with brass pumps; all tanks seam welded. Capacity 5 gallons

DRAGON FIRE PUMPS meet Underwriters' Laboratories requirements and can be supplied with the UL label of inspection attached.

PARCO PRODUCTS COMPANY

PENNSBURG, PENNSYLVANIA

The mail brings me "Turn Out" the official newsletter of the International Fire Buffs, Inc., containing a good run down on their 1957 convention in Cincinnati where they were hosted by the Box 13 Associates. Hope to report more fully on this convention in a near future column. Suffice it to say, the paper is now available on an individual subscription basis, four copies for $2.00 a year, via Ray Wheatler, 1813 N. Montford Avenue, Baltimore 13, Md., its editor.

Paul Darrell, 1500 Chanslor Avenue, Richmond 5, Calif., and our good Oakland friend, Brian Thompson, are preparing a reprint of King's "History of the American Steam Fire Engine." Publication is tentatively scheduled for the spring of next year.

"In order to make this new issue as complete as possible," pens Paul, "the assistance of all interested will be appreciated. We would like to hear from anyone possessing illustrations or data, especially of the more obscure makes of steamers, as well as action pictures, engine house scenes, horses, quick-hitch harnesses, tenders and similar items. Also all types of tractor-drawn steamers. A note to me (Paul Darrell) will help find a spot for this information in the forthcoming publication."

That's about "30" until the bells go down again next month. Please keep the excellent anecdotes and news material flowing to 4234 Don Diablo Drive, Los Angeles 8, Calif. □□

What's Burning?

THE FOLLOWING LIST includes fires of $10,000 and over in the United States and Canada for the period from September 19th to October 25th.

Cullman, Ala.—Woodward Department Store building destroyed.

Blytheville, Ark.—Storage building of E. C. Robinson Lumber Co. and building owned by Gay & Billings Coal Co. destroyed; office building of R. D. Hughes Cotton Gin Co., damaged.

El Dorado, Ark.—Three storage tanks at Johnson Oil Co. bulk plant and dwelling across the street, destroyed. Electrical switch closed when tank overflowed.

Helena, Ark.—Barber shop destroyed; women's ready-to-wear shop and hardware store, damaged.

Auburn, Calif.—Opera House destroyed and Kenison Building damaged.

Capitola, Calif.—Saba Restaurant and ballroom destroyed.

El Centro, Calif.—Maggio Bros. refrigerated produce warehouse destroyed.

Emeryville, Calif.—T. W. Corder wool processing plant damaged.

Los Angeles, Calif.—An acre of permanent street scene sets, including historic "New York Street Scene," destroyed.

Los Angeles, Calif. — Professional Equipment Bureau, division of Physicians Electric Corp., damaged.

North Hollywood, Calif. — Hody's Restaurant damaged. Flaming grease from broiler.

Pico, Calif.—Plating Co. plant damaged.

San Diego, Calif.—Two dwellings destroyed and many other dwellings and garages damaged in Mission Valley.

San Mateo, Calif.—Coyote Point Substation of Pacific Gas & Electric Co., damaged. Lightning.

MORE FIRE-FIGHTERS DIE

of smoke and fume inhalation than from heat and flames!

The Fireman with the Scott Air-Pak breathes SAFELY in any Atmosphere

Excessive smoke inhalation can have cumulative effects which in time can result in various disabilities and even tend to shorten life. Without complete Scott Air-Pak protection fire fighters can enter the realm of unhappy statistics.

But to the man who wears a Scott Air-Pak, the above is what happens to the other fellow. With Air-Pak protection the fireman enjoys cool, fresh air with every breath, no matter how thick the smoke gets.

And the new SCOTTORAMIC Mask gives vision unlimited — wide angle vision in all directions that helps firemen to spot danger zones quickly.

Scott Air-Paks give the greatest protection at the lowest cost. Write for complete information, or contact your nearest Scott Distributor.

Celebrating a Quarter of a Century of Progress

SINCE 1932 Scott FOR SAFETY - FOR SERVICE

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SCOTT AVIATION CORP.

215 ERIE STREET LANCASTER, N. Y.

Canada: Safety Supply Co., Toronto — Branches in Principal Cities

Export: Southern Oxygen Co., 250 West 57th Street, New York 19, N. Y.

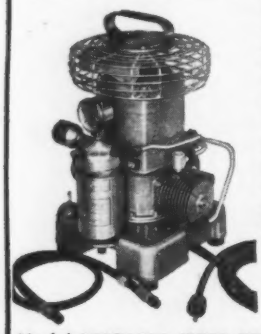
From one chief to another . . .

CHIEF F. TED BECKER
MONROVIA, CALIFORNIA, SAYS:

"The Cornelius high pressure air compressor is the most valuable piece of up-to-date equipment we have purchased."

Chief Becker continues: *"In October, 1956, we placed in service a Cornelius high pressure air compressor Model 130R1500. It has proven to be the answer to our air supply problem. Since placing our Cornelius compressor in service it has become second nature to don the air masks at emergencies and allow frequent drills which has instilled confidence in the men.*

"Its simplicity of operation, its portability for use anywhere, its precision construction, and its ability to replenish our air supply as needed makes it the most valuable piece of up-to-date equipment which we have purchased."



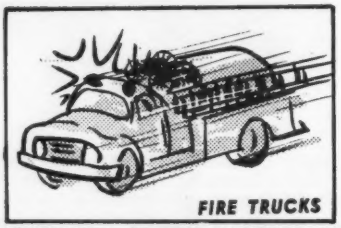
Be sure the men in your department have the protection and confidence inspired by an abundance of pure, fresh air supplied by a Cornelius compressor. Write today for FREE catalog or call your equipment distributor for a demonstration.

THE *Cornelius* COMPANY

Model 130R1500 (3000 PSI) **550 39th Avenue N.E., Minneapolis 21, Minnesota**

Kay-Lab Flashers for Warning Lights

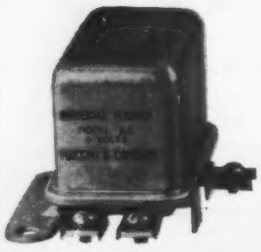
"KAY-LAB" FLASHERS are specified by many fire depts. Repeatedly the choice of City, County and State governments requiring flashing lights on emergency vehicles because only "Kay-Lab" has the features specified.



FIRE TRUCKS

"STOP-IT" SAFETY FLASHER FOR "CHIEFS" CAR

Makes lights flash on-and-off. Used for flashing warning signals and directional signals. Continues to burn lamps with a steady light in event of failure. Available in 4 types. Will flash one, two, three, four or any combination of lamps up to 6 amperes without matching flasher to load. 6 and 12 volts.



"UNIVERSAL" ALTERNATING FLASHER—FOR "HOOKS-AND-LADDERS" AND MULTIPLE LIGHT VEHICLES

Heavy duty. Meets requirements of State Laws for alternating flashing signals. Up to 15 amperes. 6 or 12 volts. No parts to wear out, requires no lubrication, no up-keep. Operates magnetically. Good for lights or horn signals.

Write for Folder, Prices and Discounts.

MACCHI & COMPANY

819 Valencia Street, San Francisco 10, Calif.

Santa Cruz, Calif.—Hughes-Yates Lumber Co. extensively damaged.

Van Nuys, Calif.—Two dwellings, guest house, bath house, garage, and storage shed, destroyed. Plane crash.

Ansonia, Conn.—Building housing restaurant and apartments, badly damaged.

Milford, Conn.—Discount department store destroyed.

Norwalk, Conn.—Shirham Golf clubhouse destroyed.

Norwalk, Conn.—Shorehaven Country Club destroyed.

Stamford, Conn.—Two-story cement-block factory occupied by two firms, damaged. Loss included phonograph record manufacturing firm.

Newark, Del.—Research laboratory of Continental Fibre Division of Budd Co., destroyed. Explosion.

Newport, Del.—DuPont Co. Krebs Titanium plant damaged. Hydrogen gas explosion.

Cocoa, Fla.—B. O. P. Furniture Co. store destroyed.

Albany, Ga.—Albany State College for Negroes damaged.

Atlantic, Ga.—Russell Weill Distributing Co., automotive rebuilding firm, badly damaged.

Morrow, Ga.—Auction barn damaged.

Savannah, Ga.—Vernon View dwelling of John W. Middleton destroyed.

Burley, Idaho—Farmers Equity bean warehouse damaged. Seventeen-year-old boy charged with arson.

Chicago, Ill.—Building housing Carson's Restaurant damaged.

Chicago, Ill.—Buildings housing Logan Square Bowling & Billiards, three taverns and apartment, damaged.

Chicago, Ill.—Nate Cash Lumber and Supply Co. destroyed.

Keekannee, Ill.—Building housing cab firm, restaurant, tavern, real estate and insurance office and barber shop, destroyed.

Northbrook, Ill.—El Monaco Lounge destroyed.

Oblong, Ill.—Building housing Oblong Locker plant and Kirtland Lumber Co., destroyed.

Plano, Ill.—Federal-Huber Mfg. Co., plumbing fixture firm, destroyed. Defective oil furnace.

Springfield, Ill.—Mayfair Apartment building damaged.

Fort Wayne, Ind.—Cleaning establishment and adjacent shoe repair shop and apartments, badly damaged.

Gary, Ind.—Loster Lumber Co. damaged.

Indianapolis, Ind.—C. H. Marsh & Co. sawmill damaged.

Kokomo, Ind.—Cuneo Press of Indiana damaged.

Medford, Ind.—Grain elevator of Delaware County Farm Bureau Co-operative Association, heavily damaged. Spontaneous combustion.

Des Moines, Iowa—Storage yards and office of H. M. Iltis Lumber Co. destroyed.

Hopkinton, Iowa—Building housing Post Office, cafe and apartments destroyed; adjoining store damaged.

Ottumwa, Iowa — Four-story brick structure housing the Ottumwa Heights Academy and College destroyed.

Waterloo, Iowa—Waterloo Valve Spring Compressor Co. damaged. Short in electro-static paint booth.

Leavenworth, Kans.—W. H. Kemp furniture factory destroyed.

Louisa, Ky.—Blaine High School destroyed.

Louisville, Ky. — Primary-school wing of St. John's Lutheran Church destroyed; church damaged. Explosion.

Louisville, Ky.—Young & Hoffman Gas Station destroyed.

Newport, Ky.—Junk yard owned by David Kirschner destroyed.

Paducah, Ky. — Warehouse building housing Paducah Dry Goods Co. and Humpy's Billiard Parlor, damaged.

Pineville, Ky.—A & P Super Market destroyed.

New Orleans, La.—Meal-A-Minit restaurant under construction damaged. Arson suspected.

Showhegan, Me.—Home Center Furniture Store and attached dwelling of Bernard Cashier, damaged.

Severna Park, Md.—Dawson's Drug Store destroyed.

Boston, Mass.—Five-story building occupied by a furniture and appliance company, destroyed.

Gloucester, Mass. — Eighty-five-room Felton House and Seven Gables and employees' cottage on Hawthorne Inn property destroyed; guest house damaged. Suspicious origin.

Quincy, Mass.—Candy and syrup processing plant of Howard Johnson Co. damaged.

SeeKonk, Mass.—Old Grist Mill Restaurant destroyed.

Stoneham, Mass. — Mercantile block housing Fredericks Pharmacy, Evelyn-Marie Beauty Salon and Atlas Paint and Wallpaper Store, damaged.

Augusta, Mich.—Augusta Cleaners plant destroyed.

Bay City, Mich.—Grain elevator and adjacent three-story building of Wenonah Flour Milling Co. destroyed.

Detroit, Mich.—Holiday Manor damaged.

Grand Rapids, Mich.—Hooker Glass & Paint Manufacturing Co. destroyed.

Grand Rapids, Mich.—Cornell Oil Co. damaged. Believed incendiary.

Grand Rapids, Mich.—Ver Brugge Oil Co. damaged. Believed incendiary.

Grand Rapids, Mich.—Parking ramp roof of Eberhard Supermarket destroyed. Possible incendiary.

Maple Rapids, Mich.—Barn on Dland A. Allen farm destroyed.

Reese, Mich.—Massols Sales Inc., Chrysler-Plymouth agency destroyed. Believed incendiary.

Saginaw, Mich.—Former F. W. Carlisle tannery used as warehouse, housing lumber of Dow Wholesales, Inc., and farm fertilizer of Davison Chemical Co., destroyed.

Spring Lake, Mich.—Anderson-Bolling Manufacturing Co. damaged.

Olivette, Mo.—Imperial Refineries office and service station, Independent Concrete Pipe Co. and Missouri and Beyers Lumber Co. plant, damaged. Explosion.

Hawthorne, N. J.—Pan Chemical Co. paint factory destroyed.

Metuchen, N. J.—Metuchen High School damaged.

Morristown, N. J.—Winchester Turnpike Inn, pre-Revolutionary War landmark, destroyed.

West Orange, N. J. — Stone-sorting mill at Orange Quarry Co. damaged.

Wildwood, N. J.—"Sea King," $100,000 fishing boat, office building and part of pier at Cardilles Dock, destroyed.

Albuquerque, N. Mex.—Charles Ilfeld Co., a major wholesale firm, damaged.

Farmington, N. Mex.—Four Corners Tire Service destroyed.

Brockport, N. Y.—J. J. Sobb Department Store and four apartment buildings with business establishments, damaged.

Buffalo, N. Y.—Building housing Overnight Valet, Inc., Famous Linen Supply Co., Inc., and Queen City Laundry, damaged. Arson.

Catskill, N. Y.—Storage building destroyed; nearby Day and Holt business building damaged.

College Point, N. Y.—Building occupied by Plaza Decorators and Merjin Bros. rug firm, destroyed.

East Patchogue, N. Y.—Hunter Metals Industries factory destroyed.

Jamestown, N. Y.—Pennsylvania Gas Co. warehouse destroyed; at least five dwellings and garages damaged. Pipe dope in 50-gallon drums exploded.

Lake George, N. Y.—William Morgan Marine Base boathouse, including 50 stored boats, paint shop and apartment, destroyed; quonset-type boathouse and storage shed damaged.

Norwich, N. Y.—Maydole Tool Corp. plant destroyed.

Nyack, N. Y.—Twenty-two room dwelling of late R. Dickinson Jewett, converted to apartment dwelling, badly damaged.

Olean, N. Y.—Building housing a restaurant, beauty shop, optometry store and jewelry shop, damaged.

Saratoga Springs, N. Y.—Gideon Furniture Co. store destroyed.

Tyrone, N. Y.—Boy Scout Camp Gorton damaged. Arson suspected.

Fayetteville, N. C.—Gray's Creek Consolidated School destroyed.

Newton Grove, N. C.—Westbrook School destroyed. Defective wiring.

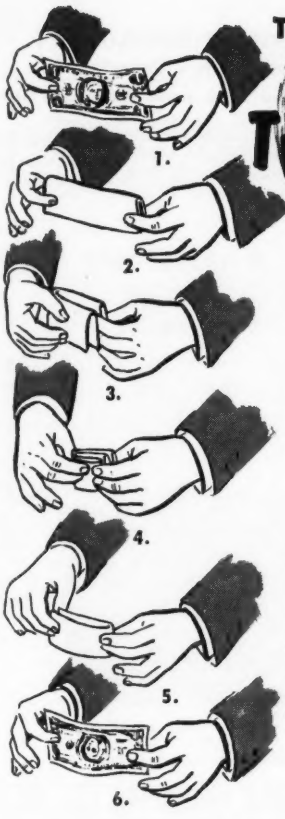
Akron, Ohio—Warehouse of Saalfield Publishing Co., including huge stock of children's Christmas books, destroyed.

Cincinnati, Ohio—Queen City Wreath Co. damaged.

Newark, Ohio—Hebron Hardware Store destroyed.

New Philadelphia, Ohio—Robinson Clay Products Co. and five B & O freight cars, destroyed.

Toledo, Ohio—Two storage buildings owned



TRY THIS . . .

TURNABOUT BILL

THE TRICK: Hold a bill with face picture to audience. By a series of folds and unfolds, the picture mysteriously appears upside down.

HOW TO DO IT: Hold dollar bill, with picture upright, toward audience(fig. 1). Fold upper half forward and down (fig. 2). Now fold right half of bill forward and to the left (fig. 3). The bill is now folded into quarters. Fold right half of folded bill forward and to the left, forming a packet of eighths (fig. 4). Take the two corners that are toward you, and unfold to the right, as if opening a book backward (fig. 5). Take end of bill nearest you and unfold to left. Unfold the half of bill *toward* the audience, bringing up and revealing George Washington mysteriously standing on his head.

The mysterious thing about Blackinton's amazing HI-GLO badge is the way it keeps its quality Gold color finish no matter how much you polish it. This is because HI-GLO is a special metal developed by V. H. Blackinton that is solid Gold color throughout. Because of its solid Gold color, your HI-GLO badge will last years longer than ordinary Gold Plated badges.

Hi-Glo

Ask your equipment supplier, or uniform manufacturer, to show you Blackinton HI-GLO badges.

BLACKINTON

NO. 21 — CLIP AND SAVE

Please send me your free and complete information on BLACKINTON badges.

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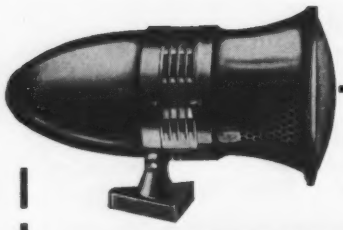
City.....*State*.....

☐ I would like to know more about the new HI-GLO metal badges.

V. H. BLACKINTON & CO., INC. 120 COMMONWEALTH AVENUE ATTLEBORO FALLS, MASSACHUSETTS



MODEL 20 SIRENLITE
for Emergency Vehicles

Siren sounds a penetrating warning, red light automatically flashes authority. Traffic opens instantly, day or night. FREE ROLLING feature.

STERLING SIRENS

- **HANDSOME**
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	U. S. Gallons Per Minute	Disch. Press. Lbs. Per Sq. In.
*FZZ	60	90
	100	70
FZ	50	60
	300	10
HPZF	15	200
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by Ohio Farm Bureau Cooperative Association, Inc. destroyed. One building housed Toledo Desk and Fixture Division of Cran. Co. and the Rowe Window Division of Johnson Frame Co., while the other building housed chemicals.

Clackamas, Ore.—Four buildings at Clackamas Meat Packing Plant destroyed. Explosion.

Coos Bay, Ore.—Bunker Hill garage and two adjoining dwellings, damaged.

Dundee, Ore.—Dundee Nut Growers warehouse processing plant destroyed.

Eugene, Ore.—Glenwood Dance Hall and apartments destroyed.

Jasper, Ore.—Jasper Lumber-Hardware Co. destroyed.

Langlois, Ore.—FSP Lumber Co. destroyed.

Linnton, Ore.—Kingsley Lumber Co. damaged.

Medford, Ore.—Bruce Bauer Lumber Co. destroyed.

Portland, Ore.—Iris Apartments destroyed.

Portland, Ore.—Sarrett Shingle Mill destroyed.

The Dalles, Ore.—Old Mill Restaurant destroyed.

Norristown, Pa.—National Cylinder Gas Co. plant damaged.

Philadelphia, Pa.—Chemical building at Fels & Co. plant heavily damaged. Explosion in alcohol-filled steel drum.

Philadelphia, Pa.—Devereux Methodist Church destroyed.

Philadelphia, Pa.—Karff-Eisman Co. plant heavily damaged. Friction ignited felt in carding machine.

Philadelphia, Pa.—Dwelling of Julius Rosenwald, 2nd damaged.

Philadelphia, Pa.—Three eight-story apartment dwellings destroyed; Swainsboro Lumber Co. damaged.

Radnor Township, Pa.—Old Radnor House damaged.

West Chester, Pa. — Holy Trinity Episcopal Church damaged.

Yardley, Pa.—Lumber yard of Louis C. Leedom, Inc. destroyed. More than a dozen other buildings damaged.

Chester, S. C.—Chappell's Gin and Sea House destroyed. Short circuit.

Centerville, Tenn.—Barn on farm of B. C. Baker and 10 valuable walking horses, destroyed. Faulty wiring.

Memphis, Tenn. — Bobbitt-Doerr Drug Co. damaged.

Nashville, Tenn.—Chemistry building at David Lipscomb College destroyed.

Dallas, Tex.—Two buildings housing Main Finance Co., Employee Service Co., Nell Bishop Beauty Shop, N & K Grill, Nick's Seafood House, Ritz Delicatessen & Bakery, Associated Millinery and Oriole Barber Shop, damaged.

Dallas, Tex.—Building housing Charles P. Sheldon Truck & Auto Repair, Antoette Sales Co. of Texas, Vilbig Concrete Co. and Cornblee Roofing, damaged.

Dallas, Tex.—Building housing Bierner & Son, Dallas Handbag Co., Advance Neckwear Co., H. B. Rommick Jobbing Co. and adjacent building, damaged.

Dallas, Tex.—Kessel's Appliance Store, The Waffle House, Lakewood Clinic, vacant shop, Henderson Hardware and Paint Store and vacant pastry shop, damaged.

Rylie, Tex.—First Baptist Church damaged.

Salt Lake City, Utah—Ritz Printing Co. virtually destroyed.

Farmville, Va.—Three buildings housing Garland and Harwood insurance offices, Advance Store, bowling alleys, optometrist's office, coffee shop, taxi stand, pool room and another insurance office, damaged.

Norfolk, Va.—Tulane, Windsor and Fairfax Apartments destroyed.

Edmonds, Wash.—Oak Lake Heat Manufacturing Co. destroyed.

Moses Lake, Wash.—Western Cold Storage warehouse destroyed.

Moxee, Wash.—Yakina Farm hop kilns of John I. Hass Co. destroyed.

Olympia, Wash.—Olympia Cold Storage Lockers destroyed.

Omak, Wash.—Jay Hill Hotel destroyed. Faulty ventilator.

Seattle, Wash.—Queen Anne Elementary School damaged. Ason.

Seattle, Wash.—Barbee Mill Co. destroyed.

Spokane, Wash.—Bon Marche Department Store warehouse destroyed.

Spokane, Wash.—Goodwin-Mayflower Storage Co. destroyed.

Spokane, Wash. — Washington Water Power substation damaged. Short circuit.

Toppenish, Wash.—Patnode Place Hop Farm destroyed. Short circuit.
Wyco, W. Va.—Tipple at Amigo Smokeless Coal Co. damaged.
Rawlins, Wyo.—Rawlins Gas & Oil Co. warehouse and offices destroyed. Explosion.
Chatham, Ont.—Seventy-year-old Canadian Pacific Railroad Hotel destroyed.
St. Joachim, Ont.—Raymond Forbes general store and adjoining dwelling, destroyed.
St. Thomas, Ont.—Elgin Co-operative Services damaged.
Toronto, Ont.—Guide Restaurant, drug store and two other stores destroyed; other stores, offices and apartments damaged.
Montreal, Que.—Rooming house and four commercial establishments badly damaged.
Niagara-On-The Lake, Que.—Fishmarket, boat house, summer dwelling and fishing boat, destroyed. □□

Maryland Scholarship Awards

Scholarship awards in the form of financial grants-in-aid have been presented to five freshmen students entering the Fire Protection Curriculum at the University of Maryland.

Donors of the awards are: The Akron Brass Manufacturing Company, $500; Maryland State Firemen's Association, two awards of $300 each; Prince George's County Volunteer Firemen's Association, $300; Anne Arundel County Volunteer Firemen's Association, $300. The awards presented by the firemen's associations are restricted to residents of the State of Maryland but the Akron Brass award is open to any resident of the United States.

The Fire Protection Curriculum is a four-year academic program under the College of Engineering, leading to a Bachelor of Science degree. Persons interested in the program and the awards should write to Professor John L. Bryan, Fire Protection Curriculum, University of Maryland, P. O. Box 85, College Park, Md.

Obituaries

Former Chief Cleveland

David E. Cleveland, 50, former chief engineer of the Peekskill, N. Y., Fire Department died unexpectedly of a heart attack at his home in Peekskill on September 20. He had served as chief of department for a period of five years.

Commissioner Frank T. Hanlon

Frank T. Hanlon, 63, White Plains, N. Y., public safety commissioner, died in his sleep on August 11, at his home in White Plains. A popular figure in eastern fire circles, he had been fire and police commissioner for the past 17 years.

Mr. Hanlon was a native of New Haven, Conn., and had attended Georgetown University and Boston College. He was well known in athletic circles and prior to his appointment as public safety commissioner he had served for eight years as the Westchester County commissioner of recreation.

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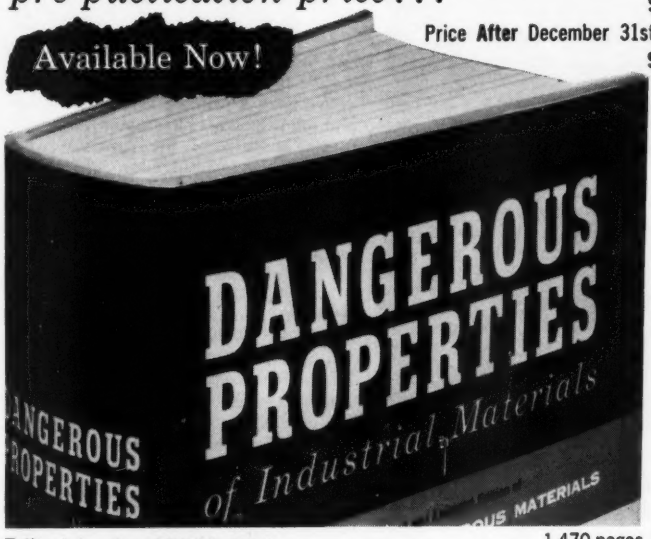

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Assisted By: LEONARD GOLDWATER, M.D., Professor of Occupational Medicine, Columbia University; WILLIAM B. HARRIS, Chief, Industrial Hygiene Branch, Health and Safety Laboratory, U.S. Atomic Energy Commission; JOHN B. HARLEY, Chief of the Analytical Branch, Health and Safety Laboratory, U.S. Atomic Energy Commission; JOSEPH J. FITZGERALD, Supervisor of Radiological Chemistry and Physics, Knolls Atomic Power Laboratory, General Electric Co.; and MILTON S. DUNN, M.S., M.D., Medical Director, Rensselaer Division, General Aniline and Film Corp.

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This new volume now fills this need to perfection. It is an entirely rewritten and greatly expanded version of the original work. "Dangerous Properties" is truly a bible of safety information. Every aspect of industrial safety is included, and arranged for practical use. In addition to encyclopedic information on the hazards of over 8,500 general chemicals and industrial materials, it also contains vital safety information in comprehensive sections. A glance at the contents will indicate the book's invaluable subject matter. The objective of providing a quick, single SAFETY reference for those involved in the manufacture, use, handling, storing or shipping of hazardous materials is fulfilled.

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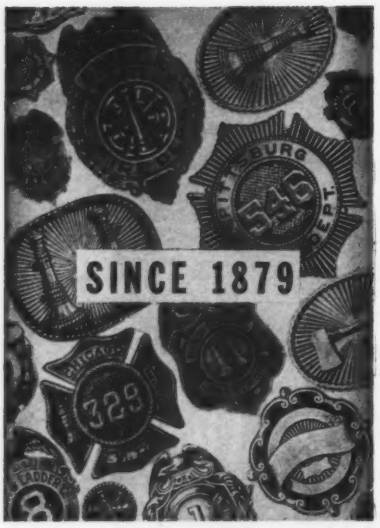

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Questions and Answers

Hazards of Collodion

To the Editor:

We have a printing arts building here and my inspectors have noted very heavy fumes in parts of the structure which have a strong, acrid odor. Obviously it was something highly volatile and upon investigation we were told they came from collodion. Please advise me concerning this product, its use and hazards.
H. McA.

Answer: Collodion is gun cotton dissolved in alcohol and ether. It is a pale yellow syrupy liquid, having the odor of ether. Its chief uses are in photoengraving and wet plate photography. All authorities agree it is a highly dangerous hazard and very flammable. Its vapors form flammable mixtures with air at all temperatures down to 0° F. (Sax *Handbook of Dangerous Materials*). It should be stored in safety cans, only a day's supply kept inside the building, and used from vapor-tight approved containers. Open flames or lights should be prohibited. Flash point is 40° F. Red label is required (Dominge and Lincoln, *Fire Insurance Inspection and Underwriting*).

Ignition Temperature of Gasoline

To the Editor:

What are the principal differences between ordinary gasoline and aviation gasoline? D. P.

Answer: Tests by the Underwriters' Laboratories Inc., show that 100 octane aviation gasoline has a flashpoint of −36 F. as compared with −45 F. for 60 octane gasoline. The lower limit of flammability is 1.1 per cent as compared with 1.3 per cent for ordinary gasoline; the ignition temperature is 853 F. as compared with 536 F., and the maximum explosion pressure is 96 psi compared to 98 psi.

Definition of Hazards

To the Editor:

What is the meaning of the following terms as applied to fire department inspections: (a) Common hazard; (b) special hazard; (c) conflagration hazard; (d) exposure hazard? I. S. C.

Answer: (a) Common hazards or common causes of fires are those ordinary and universal conditions and operations that may cause fire and which are common to a greater or less extent in all classes and occupancies of property, due directly to the property or work carried on therein and irrespective of the special hazards of that particular class.

(b) Special hazards are those special conditions and operations due directly to the processes of manufacture, characteristic work, or nature of occupancy of a

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special class which have a potential possibility of causing fire, irrespective of those hazards which are common to any and all classes of occupancies.

(c) The NFPA defines a conflagration as "fires spreading over a wide area and destroying numbers of buildings under a diversity of ownership." Another definition has been given as "property loss of over $1 million." More recently the term has been applied to losses in excess of $250,000.

Applying whichever term is acceptable, a conflagration hazard, therefore, would be that which offers the potential possibilities for a fire of those proportions.

(d) An exposure hazard is a structure or other property which can be ignited by fire in an adjoining building or from some other exterior source.

"Downwind"—"Stake-out"—"Watch Line"

To the Editor:

In an earlier issue of FIRE ENGINEERING in an article on fire service ventilation, you used the term "downwind." Also, in a captain's examination a question was asked on the definitions of "stake-out" and "watch line." What are the meanings of these terms? G. M.

Answer: Smoke travels "downwind" when it is carried on the wind in the direction the wind is taking.

To the best of our knowledge the term "stake-out" is not generally encountered in the fire service. It is, however, a common expression used in the police service to "set up a watch" upon a person or thing. The term therefore could properly apply in fire service terminology to "maintain a watch" on a building which has had a fire.

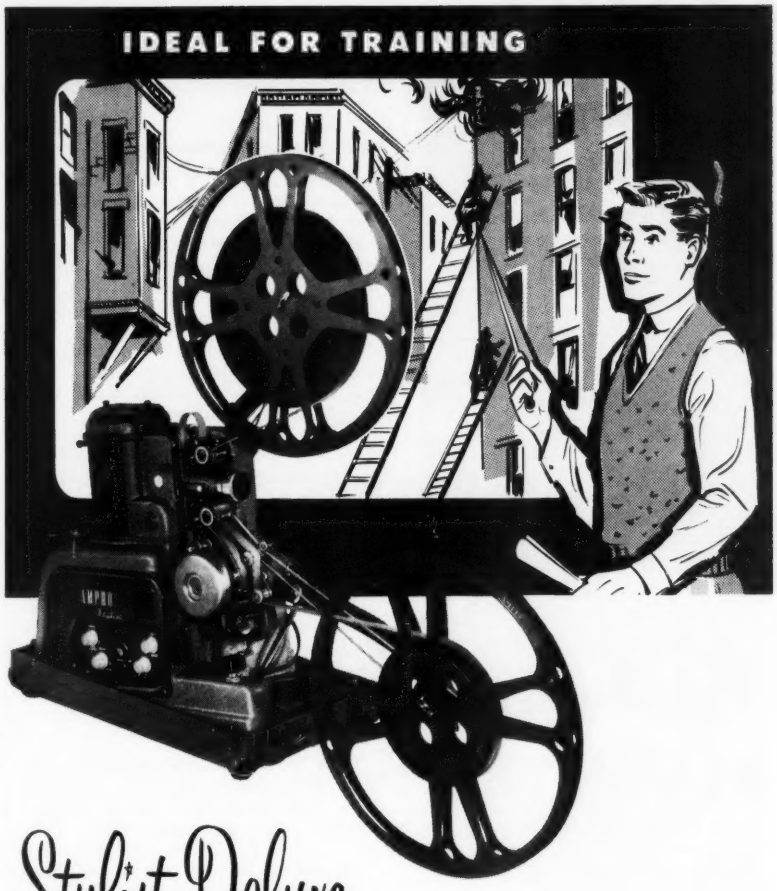
A "watch line" is an old expression to describe a hose line that is left ready for action after a fire has been extinguished or knocked down, and the fire department returned to quarters. One might say that to set up a "stake-out" under these conditions would be to leave a "watch line" on the premises. □□

Low Insurance Rate Approved

The New York State superintendent of insurance has upheld as adequate the rates on dwelling houses filed by the Insurance Company of North America. The rate schedule is estimated at 7 to 10 per cent under premiums charged by most other stock insurance companies operating in the state.

As a representative of those companies, the New York Fire Insurance Rating Organization contested North American's right to base its rates on its own expense of doing business rather than on the industry-wide experience in that regard.

In ruling on the matter Superintendent Leffert Holtz said in part, "There is nothing in the law which says that the rating bureaus shall be paramount. To hold otherwise would not be in the public interest. As a matter of fact, competition in the public interest is encouraged."



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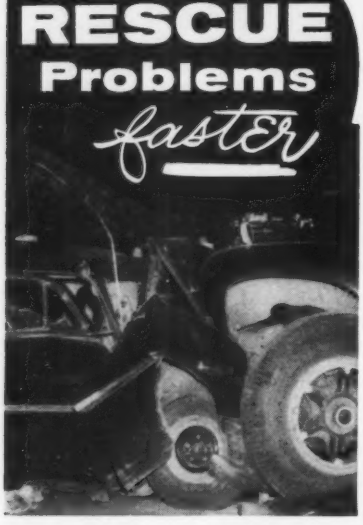

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World-Wide Fire News

Queen Waits on Firemen

Queen Elizabeth II got her first look at New York City's fire fighters when she and the Prince were ferrying to Manhattan from Staten Island. She saw Niagaras of water in the sky, rising from three of New York's fireboats.

Her next—and closer look, came when, just before she left the City Hall that afternoon, land mobile units dashed across her cavalcade route, sirens sounding, through the Chambers Street arch of the Municipal Building.

Police cleared a lane through the spectators, and Engine 12 and Ladder 1 roared through. But 'tis said, a chief's car (no names please) stalled in the roadway, and had to be pushed before it would start again—just in time, to let the show go on.

The alarm was for a gas stove fire at 374 Pearl street in the Alfred E. Smith settlement houses. Considering the size of the crowds, this was one time when the fire fighters went practically unnoted.

Shells Blow Up Freight

Over 200 of the 2500 residents of the town of Piedmont, Ala. were evacuated from their homes Oct. 21 as a safety measure, when scores of artillery shells in a burning freight car exploded.

No injuries were reported, and there was more noise than damage, it is said. Sixty tons of 105-mm shells were in the freight car which caught fire as a Seaboard Airline train eastbound from Birmingham pulled into Piedmont, about half way between Birmingham and Atlanta.

Trainmen discovered the blaze quickly and risked their lives to detach the car from the other two ammunition-carrying cars next to it (we thought regulations prohibited this practice).

At 8:00 A.M. the car was practically burned out and firemen could get closer to the wreck. Many live shells, however, had blown out of the car and troops from Fort McLellan, 25 miles away, patrolled the vicinity.

From the World News Ticker

The German gasoline tanker Panela collided with the Finnish freighter Clio and exploded in the Elbe River, Oct. 12. Four persons aboard the Pamela were reported missing. . . . On Oct. 16, striking telephone workers in Buenos Aires and other Argentine cities rejected a 'final' offer by the government-owned telephone company designed to end their 27-day-old walkout. . . . In Lyons, France, one Raymond Revellin-Falcoz, 33, was extracted on March 13 from the foot of an eight-story chimney in his apartment house, after he had fallen into the chimney—believe it or not, while sleepwalking on the roof. Firemen, called by a building employee who heard

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muffled cries, got the victim out. . . . Precautions for the safety of England's queen were intensified at Idlewild Airport prior to her departure by plane, Tuesday night, after a telephone warning was received at the KLM Dutch Airlines ticket office that an attempt would be made on her life. . . . A boiler explosion in Benevento, Italy, Oct. 19, shattered a safety-match factory and brought the building down on 60 workers. Five persons, two of them girls, were known dead, eight others injured. . . . The Japanese government's geo-electric and geo-magnetic observatory in Tokyo was damaged recently in a fire that destroyed its findings of cosmic ray observations for the last ten years. The observatory was one of four assigned to conduct cosmic ray observations for the International Geophysical Year in Japan. . . . Firemen wearing special breathing apparatus were called in Oct. 21 to extinguish a threatening blaze on the 35,000-ton Cunard liner Mauretania, undergoing her annual overhaul in the Liverpool docks. . . . Galveston, Tex. firemen battled a stubborn fire in 2000 bales of cotton aboard the 10,000-ton freighter Eugene Lykes, Oct. 26. Fire broke out in hold No. 4 about 190 miles out of Galveston. The crew played CO_2 into the hold and put down the fire, but after the ship docked and the hatch cover was removed, the fire broke out again. . . . At Fort Walton Beach, Florida, an Air Force tech' sergeant apparently suffocated in his sleep Oct. 17, as fire swept a house trailer. He died despite effort of three men to rescue him. Operator of park had given him permission to sleep in the trailer. . . . The Nieuw Amsterdam, 36,667-ton Holland-American liner was damaged by a blaze while in Rotterdam, Oct. 21. □□

N. E. Conference Committees

In preparations for the 1958, Thirty-Sixth Annual Conference of the New England Association of Fire Chiefs, President Chief Thomas H. Slaman of Wellesley, Mass., has appointed the following committees:

EXHIBITS: Chiefs Bart Curran, Scituate, Mass. Chairman; Thomas Gorman, Quincey, Mass., and Ex-Chief A. J. Cote, Woonsocket, R. I.

RESERVATIONS: Ex-Chief Oliver T. Sanborn, Portland, Me. Chairman and Ex-Chief William H. Clifford, 3rd., Cape Elizabeth, Me.

REGISTRATIONS: Chief Alfred Koltonski, Rutland, Vt., Chairman and Chief Walter R. Messer, Keene, N. H.

PROGRAM: Chiefs Stephen R. Zanieski, Greenfield, Mass., Chairman; Arthur Flynn, Salem, Mass. and Henry G. Thomas, Hartford, Conn.

REVISION, BY-LAWS etc.: Chiefs Herbert Travers, Worcester, Mass., Chairman; George C. Graham, Bristol, Conn.; Henri E. Fortier, Manville, R. I.; Frederick R. Crompton, Portsmouth, N. H.; John E. Keefe, Bellows Falls, Vt. and Richard Frates, Bath, Me.

John W. O'Hearn, Secretary

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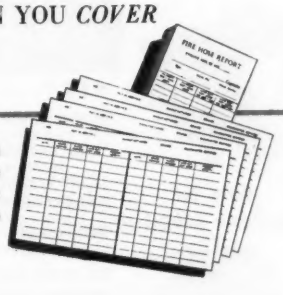

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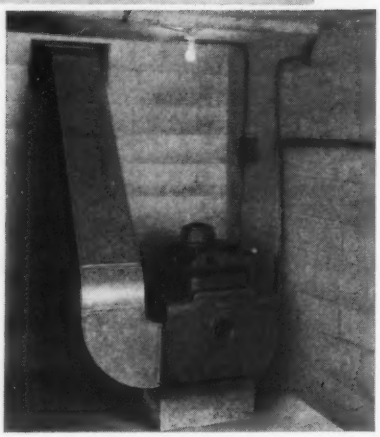

Onan 10KW, Series "CW" installed in the basement of a hatchery. Single duct for heated air also carries the exhaust line. Note how the compact, two-cylinder Onan "CW" fits into a corner, out of the way.

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515 LYCASTE AVENUE • DETROIT 14, MICHIGAN

MANUFACTURERS' NEWS

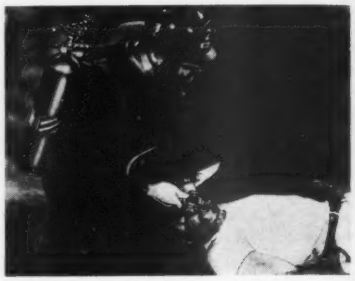
Continued from page 1130

Milo C. Roy, who has been manager of the Chicago sales and service branch, will succeed Mr. Wahlenmaier.

W. B. Morse, assistant to the manager of the Chicago branch, has been promoted to manager effective October 1.

Edward E. Lynn has been named director of personnel of the company succeeding L. R. Gaiennie who recently resigned. Mr. Lynn was a partner in the law firm which has served as counsel to Fairbanks, Morse & Co.

Combination Mask-Resuscitator



A portable mask and resuscitator combination unit has been introduced by The Fyr-Fyter Company, 221 Crane Street, Dayton 3, Ohio.

Known as the Dualife and weighing 39 pounds, the unit contains about 40 minutes of gas in its two chromaloy cylinders, when used as a combination or about an hour's service individually. Built-in gages provide the wearer with pressure information, and a warning bell sounds automatically when the compressed air or oxygen supply needs replenishing.

Reading Squad Body

The Reading Body Works, Inc., Reading, Pa., has recently delivered a squad wagon to the Narberth, Pa., Volunteer Fire Company.

Designed to transport fire fighting reinforcements, it features a windowed cab for personnel protection as well as compartments for a generator, floodlights, resuscitator, salvage covers, etc.

The body can be easily adapted for mounting a pump to make it a first-line fire unit.

US Rubber Elects McGovern

John W. McGovern has been elected president of United States Rubber Co. and designated chief operating officer by the board of directors. Formerly executive vice president, Mr. McGovern succeeds H. E. Humphreys Jr. as president. Mr. Humphreys continues as chairman of the board of directors and chief executive officer.

At the same time, the board designated vice presidents Eugene A. Luxenberger and George R. Vila as group vice

presidents. The board also elected Earle S. Ebers a vice president and appointed him general manager of the chemical division.

C. William Pennington was elected a vice president and appointed general manager of the company's footwear and general products division succeeding Mr. Luxenberger.

Federal Features Hood

Federal Sign and Signal Corporation, 8700 South State Street, Chicago 19, Illinois, has added a handy plastic cover to its portable Fireball emergency warning light.

With cover in place, the revolving light can be dash-mounted and operated without distracting the vehicle's occupants.

Goodrich Mine Hose

For protection against fire, coal mines spot lengths of fire hose at convenient intervals throughout the mines. Storage creates problems, however, as the sulphuric acid, limestone, coal dust and moisture in the mine atmosphere cause rotting and mildew.

A year ago a large commercial coal producer in Alabama, installed Pinnacle fire hose manufactured by B. F. Goodrich Industrial Products Company, Akron, Ohio. It is claimed this hose has solved the problem because its cotton jacket with synthetic fiber filler is covered with a specially compounded synthetic rubber that resists acid, oil and abrasion.

GE Announces Promotions

L. R. Sheeley, sales manager, General Electric Communications Products Department has announced the following promotions:

Everett N. Gaulding, Jr., has been named Iowa district sales manager and will maintain offices at 108 East 4th Street, Des Moines. Mr. Gaulding replaces J. E. Ardery, who has been transferred to the Syracuse, N. Y. headquarters.

Harley F. Rolfe has been named dis-

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with NEW DIRECTIONAL HAND WHEEL CONTROL

One man can operate the gun. It will hold in any position.

EASY TO OPERATE •
STURDY •
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CONCORD, NEW HAMPSHIRE

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SAFETY BELTS OFFICERS' BELTS CAPS BADGES
SECRETARY'S RECORD BOOKS
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SECRETARY'S BLANK FORMS

Write for Catalog 351

CAIRNS & BRO., Inc.—Allwood, Clifton, N. J.

SINCE 1836

Better Hose Care - with CIRCUL-AIR
HOSE CONDITIONING EQUIPMENT
WASHERS • DRYERS • TURN-TABLES • STORAGE RACKS

FIRE HOSE DRYER

The patented, electrically operated Circul-Air hose dryer circulates prewarmed fresh air through loosely coiled hose at the rate of 5 to 6 air changes per minute. Saves floor space, hard work and lengthens hose life. No other drying method is so fast—so economical—so easy to use. Circul-Air is the preferred drying method in over 4,000 leading Fire Departments.

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WASHES—RINSES—DRAINS HOSE

Washes, Rinses, Drains hose thoroughly and quickly. Simple, one-man operation. Ashes, dirt, mud and sludge are automatically scrubbed out and flushed away. Saves time. Lengthens hose life. WRITE FOR FOLDER

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Fire Service Rescue Manual—$1.25

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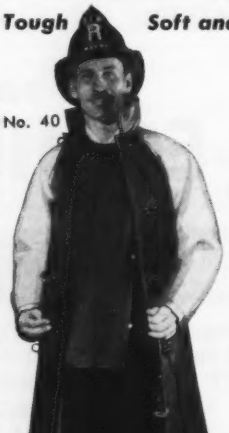
NATURAL RUBBER
Tough Soft and Pliable



DULL FINISH NATURAL RUBBER ON HEAVY NAPPED FLANNEL

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MORNING PRIDE MFG. CO.
1986 HOME AVE., DAYTON 7, OHIO

trict sales representative at Seattle, Wash., with offices at 220 Dawson Street.

L. Keith Elrod has been named district sales representative at Nashville, Tenn., with offices at 2720 Nolensville Road.

M. G. McRae has been appointed district representative at Jacksonville, Fla., with offices at 1523 Prudential Building.

General Promotes Lyon

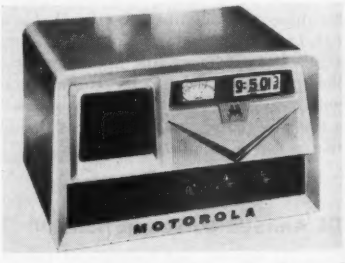
As a part of an extensive reorganization and expansion program The General Fire Extinguisher Corporation, manufacturers of fire extinguishers and fire protection equipment, announces the recent appointment of Harry G. Lyon as assistant general sales manager.

Mr. Lyon joins the company's sales force in St. Clair Shores, Michigan after ten years service as branch manager and general sales manager in General's Canadian operation.

El-Tec Appoints Kribble

Appointment of William Kribble as sales engineer for Electronic Protection, Inc., Standard Coil Products Co., Inc., Melrose Park, Ill., is announced by V. Lee Cook, president. Kribble, a native of Moline, has been the city's communication signal engineer for the last eight years.

Motorola Remote Control Unit



A new remote control console, designed for application flexibility is available from Motorola, Inc., 4501 West Augusta Blvd., Chicago 51, Ill. The compact console extends the control function of any remotely-located base station to the dispatcher's office over wire lines.

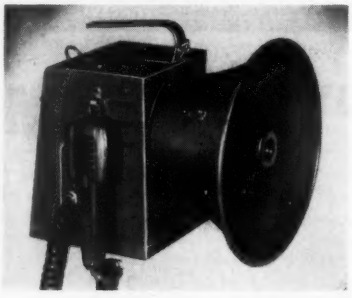
The unit has provisions for 13 controls which may be utilized for one or more of the "kits" available to meet the needs of the system.

Ward LaFrance Promotes Malcolm

George N. Malcolm has been appointed assistant to the president of Ward LaFrance Truck Corporation, F. N. Tracy, president of Ward LaFrance has announced.

Mr. Malcolm has been with the Glen Alden Corporation, of which Ward LaFrance is a subsidiary, since 1953. A graduate of the Polytechnic Institute in Sunderland, England, he is a machine designer and mechanical engineer. Mr. Malcolm will have offices at 420 Lexington Avenue in New York as well as in Elmira at the Ward LaFrance plant.

Transistorized Paging Unit



A transistorized portable paging unit, called the Transi-Page has been announced by Transi-Page of Chicago.

The new unit is light in weight and it is claimed the transistorized circuit provides greater power and longer battery life for intermittent or continuous use.

The unit is sold through Irwin Products Co., 4937 N. Damen Avenue, Chicago 25, Ill.

Onan Bulletin

Packaged electric power for keeping truck radio batteries charged, is described and illustrated in a new Onan "Mobile Installations" folder.

The illustrated, 8-page folder describes three power systems, each specifically engineered to provide electric power for users of mobile communications equipment.

Copies are available by writing the manufacturer, D. W. Onan & Sons, Inc., Minneapolis 14, Minn. Ask for "Mobile Installations" Folder—Form F-111.

Specify HALE because the FULL LINE of HALE Pumps are:

- Noted for Dependability and High Efficiency.
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The accelerated tempo of modern times demands modern techniques plus stepped-up efficiency. Fire departments everywhere find the Super Vacuum Smoke Ejector provides the extra margin of efficiency necessary in modern day fire fighting. New and revolutionary in design, Super Vacuum will outperform other fans twice its size... gives the positive, controlled ventilation essential to the prompt, efficient control of fires.

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The heart of the SUPER VACUUM Smoke Ejector is the patented propeller. Conventional fans produce a chopping, recirculating action. In contrast, the SUPER VACUUM propeller is a perfect spiral air screw which creates a vacuum... suction is created over the entire face of the propeller and the air or smoke is discharged in a high velocity spiral. There are no dead spots.

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Chief---

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Save rushing to chimney fires—avoid slippery roofs by using IMP Chimney Fire Extinguisher. Just throw a 65¢ package "as is" on the hottest part of the fire in the stove, furnace or fireplace. The chimney fire will be out in jigtime without water or chemical damage. Recommended by many chiefs who carry IMP in their cars. ALSO —LIQUID IMP for *oil fired units*, is as much a fire preventative as pkg. IMP. Saves oil, money, increases heat, prevents sludge, reduces carbon deposits and is safe. You know what a fire hazard sludge is. Use LIQUID IMP in your own burners. 3½ oz. enough for 90 gals. kerosene or 55 gals. No. 2 fuel oil; 16 oz. enough for 5 times above quantity; 1 gal. enough for 1600 gals. #2 fuel.

A fire prevented is worth more than a dozen extinguished!

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.....doz. pint Liquid IMP @ $27.00 per doz.
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I will honor your bill f.o.b. Bridgeport.

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CITY..... STATE.....

FIRE EQUIPMENT DISTRIBUTORS ATTENTION!
Add package and Liquid IMP to your line.
Write TODAY for special distributor Plan.

THREATENING AREA FIRE

Continued from page 1125

gaged it is essential there be close cooperation and coordination of efforts. This emphasizes the importance of overall command (the assistance of highway patrols is invaluable).

6. **Record Keeping**—In any extensive operation, involving many services it is difficult to keep records of movements and other developments. Yet these may be essential, particularly where injuries to personnel and equipment accidents are involved. This is a responsibility of command.

7. **Surveys**—The larger the operation the greater the need of surveys and prompt factual reporting of conditions. Here air reconnaissance and communications play an important part.

8. **Weather**—An important fundamental of forest and field fire fighting which calls for constant surveys.

9. **Relieving**—In large scale operations it is easy to overlook operating units in the field and fail to relieve hard worked personnel. This detail dovetails with the factors of reserves and feeding and cooperation among services.

10. **Relays**—Skill in relaying water long distances, whether by means of pumpers or water carriers, is an important asset.

11. **Maps**—A common weakness in directing broad gauge operations is the lack of suitable maps and charts showing highways and roads, water supplies, altitudes, etc. These should be available not only for central control and command but for the zones and front lines as well.

12. **Mutual Aid**—Well directed organized mutual aid insures recognition of the importance of the foregoing, and plans for it—providing for prompt response, move-up, covering and locating, as well as coordination of effort. □□

The foregoing account is based upon the official reports of Fire Coordinators Melvin Titus, Clinton County; William Hardy, Franklin County; Donald Cross, Essex County; George Briggs, St. Lawrence County; and Chief Charles Fales, Bureau of Fire, New York State Division of Safety.

Wisconsin Training Approved

Governor Vernon W. Thomson recently signed the Wisconsin Training Bill which will provide a statewide training program for the fire service. Under the bill the Governor will appoint an Advisory Committee and the Vocational and Education Board will provide full time supervisory personnel. Part-time firemanship instructors will be trained by the state.

Norton T. Ames

THE "QUICK HITCH" RIGID DEE-RING and SNAP have long been associated with Janesville coats. The detachable lining, custom built sleeve and coat length, and rugged construction using the finest materials have kept Janesville first!

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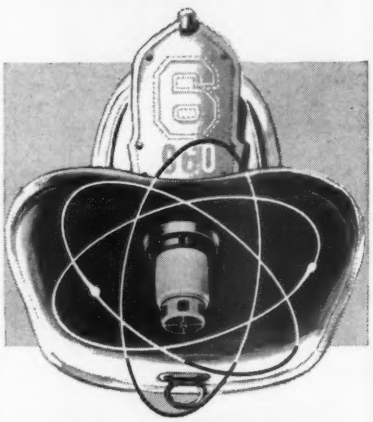
PYR-A-LARM



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HIGH FIRE

Continued from page 1132

were summons issued to David Bernstein of Sound Welding Inc. for violation of the City Code calling for a qualified fire guard during cutting operations, and to John Klepsis for failure to have a certificate of fitness on the job.

Klepsis and other workers were cutting away metal on the cooling tank. The only stand-by extinguisher was a carbon dioxide which, when the fire started in the wood bracing on the framework, proved inadequate. One of the workers ran to the 36th floor to give the alarm and the others lost no time in fleeing the roof.

Advised of the fire, and the probable cause, Fire Commissioner Edward F. Cavanagh, Jr. repeated his warnings to contractors, wreckers and the public generally over careless use of cutting torches. At the same time, he emphasized the fact that spectacular as it was, this fire was but "routine" for the city's fire fighters, which actually knocked out the main body of the fire within four minutes from the time the alarm was sounded. Only the wetting down and the overhauling were left.

On the department's records, it went down as a routine one-alarm fire. As to damage? It was listed "trifling."

To those who desire the layout of such operations, the building was equipped with two standpipes; one extending up the rear fire tower on the 45th Street elevation, the other follows the public stairs near the Third Avenue entrance. Both 8-inch risers are cross-connected in the basement.

A water tank supplying the domestic service and provided with a 3,500-gallon reserve for fire purposes only is located at the 38th floor roof directly beneath the air-conditioning water cooler. This tank is fed by a separate basement automatic pump controlled by a float valve.

In addition, a manual control fire pump also in the basement, may be used to supply the standpipes from a 10,000-gallon basement tank. The building fire pump was not used during the fire. Four sidewalk fire department connections are provided, two 3 x 3 x 6-inch siamese outlets on Third Avenue and two on 44th Street.

Each floor of the building is slightly over 10 feet in height. Located on the roof bulkhead of the 36th floor are two 3-way manifold connections to which the fire department attached its lines, stretching up the interior to the set back supporting the cooling system. The bottom of the air-conditioning cooling tower was approximately 44 feet above these manifolds. □□

Acknowledgment

The photograph on Page 782 of the August 1957 issue of FIRE ENGINEERING showing Fireman James Regan, New York Fire Department, atop an aerial ladder, in the article "Specialization Keynotes Operations of Supervising Engineers," should have been credited to Tom Baffer, *New York Daily News*.

Fairbanks-Morse Portable Generators for dependable emergency service

F-M's most popular portable generating set is the P36 series. Available in 600, 1000, 1500, 2000 and 2500 watt capacities. Provides AC 120 volt power for lights, tools, etc. The 2500 watt unit weighs only 138 lb. Most popular mobile unit is the 3KA-2H—a 3500 watt generator supplying 115 or 230 volt AC power.

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Bronze weather cap assures easy operation in any weather.

Dry top design keeps threads and bearing surfaces away from moisture.

Self-oiling reservoir automatically lubricates stem threads when hydrant is operated.

"O" ring seals around stem eliminate maintenance of stuffing boxes and glands.

Safety stem coupling and flange prevent damage to stem and barrel by traffic collision.

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Double drain valves automatically flushed when valve is opened – a positive drain.

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PORTABLE ELECTRIC HAND LAMPS

Model 700-A 2000-foot beam

Most powerful, heavy-duty hand lamp of its size. Adjustable 6-inch head. Operates on four standard No. 6 dry cells.

Model 211 1500-foot beam

Popular price, light weight, easy to carry. Adjustable 5-inch head. Holds two standard 6-volt lantern batteries. Operates on one; other is a spare.

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Missouri Valley Association Elects New Officers

The 19th Annual Conference of the Missouri Valley Association of Fire Chiefs was held in New Orleans, La., on September 8, in conjunction with the conference of the International Association of Fire Chiefs.

A brief business meeting was held and the following officers elected for the coming year: President, Chief Fred H. Lausch, Colorado Springs, Colo.; first vice president, Chief Russell D. Salak, Schuyler, Neb.; second vice president, Chief Fred A. Saefke, Fargo, N. D.; secretary-treasurer, Chief Ray Tiller, Waterloo, Ia.; director to International, Chief Ray Tiller. The following state vice presidents were also elected: Colorado—Chief N. P. Parks, Durango; Iowa—Chief Waldo Merrill, Council Bluffs; Kansas—Chief Raymond Davis, Sedgwick County Fire Department, Wichita; Nebraska—Chief Fred Walker, McCook; Missouri—Chief Russell M. Wilson, Monroe City; North Dakota—Former Chief A. F. Putschler, Dickinson; Wyoming—Chief A. L. Piper, Casper.

Colorado Springs, Colo., has been selected as the site of the 1958 conference which will be held June 2-4. Headquarters will be the Hotel Antlers.

Our Readers Write Us

C D Directors Approve

To the Editor:

We find the editorial in your September issue and the first article in the same issue concerning a tanker fire in Ohio, most interesting. We would like to have your permission to mimeograph sufficient copies of these two articles for circulation to the Volunteer firemen of Thurston County. We are installing a county-wide radio system with central control, under Civilian Defense auspices, which we hope will greatly increase the efficiency of the Fire Service of this county.

Eileen C. Porak
Acting Director
Thurston County Civil Defense
Olympia, Washington

To the Editor:

As a State official concerned with Civil Defense since 1950 I wish to thank you for the fine editorial in your September 1957 issue.

While the recently announced "approach" of FCDA is being made to sound as something novel, I want to assure you that in Maryland, and all other States with whose operations I am familiar, our basic policy has always been the development of Civil Defense around the existing governmental services with Civil Defense merely performing the coordinating leadership necessary in view of the probable widespread disaster. Since 1950 the Fire Service of Maryland has been the principal bulwark upon which Civil Defense development has grown.

I have frequently stated publicly that our progress would have been even more infinitesimal without the support and leadership given to Civil Defense by the firemen of Maryland. The mutual advantages are evidenced by your article on page 932 on the Butler County, Ohio tanker fire.

As chairman of the Legislative Committee of the National Association of State and Territorial Civil Defense Directors, I urge the active support of the fire services of the country for HR 7576 presently pending before the Armed Service Committee of the United States Senate. This legislation will provide a substantial forward step for Civil Defense at all levels of government, if it is passed and implemented by sufficient appropriations. I hasten to add that the appropriations at the Federal level do not need to be of such great magnitude to frighten the taxpayers, particularly when compared to the budgets for other Federal programs.

Sherley Ewing, Director
Civil Defense Agency
Pikesville 8, Maryland

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF FIRE ENGINEERING, published monthly at Lancaster, Pa. for Oct. 1, 1957.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, The Reuben H. Donnelley Corporation, 305 East 45th St., New York 17, N. Y.; Executive Manager, Edward B. Wintersteen, 305 East 45th St., New York 17, N. Y.; General Manager, I. H. Case, 305 East 45th St., New York 17, N. Y.; Editor, Roi B. Woolley, 305 East 45th Street, New York 17, N. Y.

2. The owner is: The Reuben H. Donnelley Corporation, 305 East 45th St., N. Y. 17, N. Y.; The Northern Trust Company, Chicago, Illinois, Trustee of Fund A under the will of Reuben H. Donnelley deceased; The Northern Trust Company, David L. Harrington and Charles C. Haffner, Jr. as Trustees under agreement dated January 24, 1946, with Thorne Donnelley, Chicago, Illinois; First National Bank, Chicago, Illinois, Trustee of Fund B under the will of Reuben H. Donnelley, deceased; Elliott Donnelley, Lake Forest, Illinois; Elliott Donnelley, trustee under Gaylord Donnelley Trust Agreement, Chicago, Illinois; Gaylord Donnelley, Libertyville, Illinois; Curtiss E. Frank, Chicago, Illinois; Harold P. Harper, Greenwich, Conn.; David L. Harrington, Flossmoor, Illinois; Harry W. Warner, Flossmoor, Illinois; Albert M. Andersen, Flossmoor, Illinois; Donald R. Arnold, Chicago, Illinois.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

EDWARD B. WINTERSTEEN,
Executive Manager

Sworn to and subscribed before me this 26th day of September, 1957.

WALTER H. FREDRICKS,
Notary Public, State of N. Y. No. 41–6391975
[SEAL] Qualified in Queens County
(My commission expires March 30, 1958.)

New stretcher makes any vehicle an emergency ambulance

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Coming Events

May 19-23—**National Fire Protection Association.** Annual meeting, Chicago, Ill. General Manager, Percy Bugbee, 60 Batterymarch Street, Boston 10, Mass.

June 2-4—**Missouri Valley Fire Chiefs Association.** Annual conference to be held at the Hotel Anglers, Colorado Springs, Colo. Secretary-Treasurer, Chief Ray Tiller, Waterloo, Iowa.

June 23-26—**New England Association of Fire Chiefs.** Annual meeting, Wentworth-by-the-Sea, Portsmouth, N. H. Secretary-Treasurer, John W. O'Hearn, 2-6 Mt. Auburn Street, Watertown, Mass.

September 15—**Pacific Coast Inter-Mountain Association of Fire Chiefs.** Annual meeting held in conjunction with the International Association of Fire Chiefs, Los Angeles, Calif. Secretary-Treasurer, Jay W. Stevens, Merchants Exchange Building, San Francisco, Calif.

September 16-19—**International Association of Fire Chiefs.** Annual meeting, Los Angeles, Calif. Secretary-Manager, B. Richter Townsend, 232 Madison Avenue, New York 16, N. Y.

FIRE COLLEGES

California Fire Training Officers' Workshop—May 19-23, 1958, Fresno, Cal. California Arson and Fire Investigation Seminar—June 16-20, 1958, University of California, Berkeley, Cal. For information, contact Thomas S. Ward, Supervisor of Fire Training, State Department of Education, 721 Capitol Avenue, Sacramento, Cal.

Morris County, N. J., Fire School—Dec. 3, Fire Headquarters, Budd Lake; Jan. 7, 1958. Madison Fire Headquarters, Madison; Feb. 4, Excelsior Fire Company, Montville. For information, contact Robert H. Wright, Publicity, Long Hill Lane, Chatham, N. J.

Virginia Arson Seminar—January 18, Thomas Jefferson Junior High School, 816 South Walter Reed Drive, Arlington, Va. For information, contact the chairman, Leslie L. Shelton, Arlington County Fire Marshal, Arlington, Va., or the seminar director, L. E. Shingledecker, Supervisor of Fire Safety, Nationwide Insurance, 246 North High Street, Columbus 16, Ohio.

Arson Investigators' Headaches

A recent Ohio arson case provides a good example of why fire marshals become prematurely gray.

The suspect was indicted, a confession obtained and sufficient evidence was gathered to prove beyond a reasonable doubt that the fire was set to defraud an insurance company.

The weight of the evidence was so great that the suspect pleaded guilty and received a sentence of from 2 to 20 years in a state reformatory.

Six days later, the court reduced the offense to "Attempt to Burn" and fined the suspect $50 and costs.

Ohio Fire Marshal's News Letter

McINTIRE GATE VALVES

Fig. 164AN

4½" swivel female x two 2½" male Gated Siamese. Quick opening, ¼ turn valves.

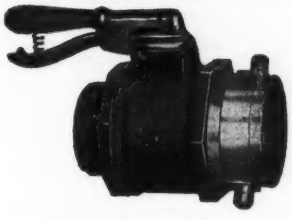

Fig. 163

Made either Right Hand or Left Hand 2½" male x female, gate valve.

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Presently employed as Assistant Chief in charge of Fire Prevention and Administrative Assistant to Fire Chief at Dhahran Airfield, Saudi Arabia. Desire position as Chief of Department in Fire Department that is in sad and neglected shape. Am at present producing weekly 30 minute Television Show; make at least two public talks weekly and work with people speaking three languages (English, Italian and Arabic). Prefer City Manager type of government. Money not near as important as the challenge that position offers, but one must survive. Am 30 years old, will be available on or after 15 July 1958, have been in Fire Protection since 1944. Have attended numerous Navy Fire Service Schools, Oklahoma A & M School of Fire Protection and periodically attend the Fire Department Instructors Conference at Memphis. Am member of N. F. P. A. and I. A. F. C. Have had experience in public relations and journalism with the World's Largest Volunteer Rescue Squad. Will be available for interrogation at Memphis during F. D. I. C. in February 1958. Would also consider position of Assistant to City Manager. Am single; good health; have helmet—will travel. Prefer Municipal or County Government over Industrial or Federal Fire Service.

Asst. Chief A. R. Alaways
Fire Department
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FIRE ENGINEERING

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short cuts and gadgets

Electric Hose Coiler

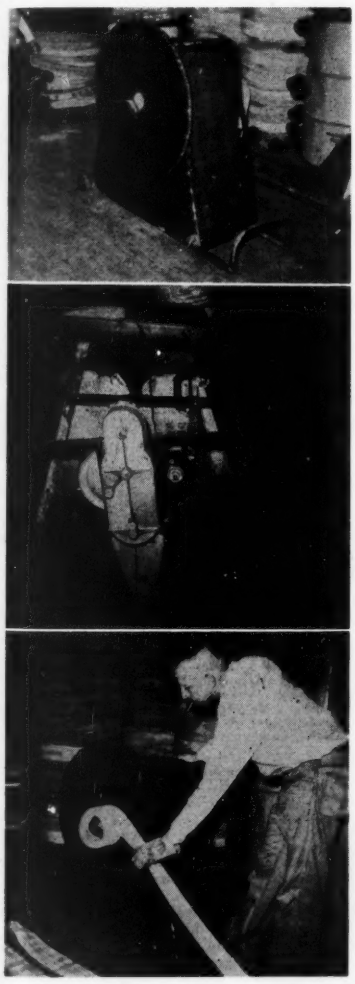
The North Tonawanda, N. Y., Fire Department uses a powered hose coiler which removes much of the back breaking work required to roll up a sizeable quantity of hose. It was designed and built by Chief Raymond J. Kropp who states it is useful with both 1½-inch and 2½-inch hose.

The heart of the coiling machine is a salvaged washing machine motor and gear box. The agitator gears are removed from the assembly and a ⅝-inch steel shaft is connected to the gear train drive. The entire unit is mounted in a plywood-covered steel framework with the drive shaft extending through the plywood on one side. The shaft is mounted on the framework by means of the original wringer coupling which acts as a bearing.

A ⅝-inch plywood drum, 30 inches in diameter, is secured to the shaft as a winding surface and a U-shaped length of half-round steel bar is mounted slightly off-center on the drum. Operation is by means of a speed control switch similar to the type used with electric sewing machines.

To use, the male coupling end of a length of hose is placed in the fork and the switch operated by one hand while the other hand guides the hose into a compact roll, which lifts off easily for racking. The speed control switch may also be placed on the floor and operated by foot.

Chief Kropp cautions that the belt on the motor drive should have a loose adjustment. This will insure sufficient power transfer for winding hose and at the same time will allow the belt to slip in case the hose catches on an obstruction.



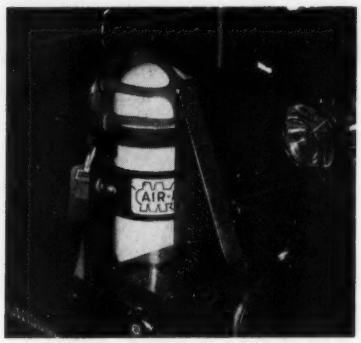
Top: Hose coiler in position for use. U-shaped fork holds male butt securely during winding operations. **Center:** Washing machine gear assembly is mounted vertically on steel channel framework. Electric motor may be removed to adjust belt drive tension. **Bottom:** Fireman coiling hose uses one hand as guide while other hand operates motor control switch

Priming Failure Symptoms

Priming failures during a drafting operation may be tracked down with the least effort if the pump operator quickly notes the pump compound gage. Little or no vacuum indication generally means an air leak; a high-vacuum reading denotes a stoppage. Time and wasted effort may be saved by noting the symptoms before taking corrective action.

Demand Mask Convenience

The Chillum-Adelphi Volunteer Fire Department of Maryland uses a unique mounting for demand masks that permits a fireman to put the mask on quickly and conveniently while the apparatus is



proceeding to an alarm. The mask is held in a spring clip mounting. The design of the pumper and the position of the mounting allows the fireman to sit down and "buckle up" enroute.

—University of Maryland Fire Service Bulletin

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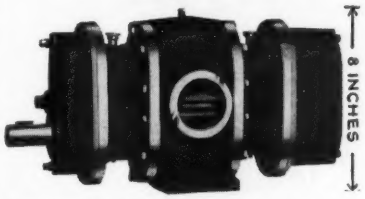

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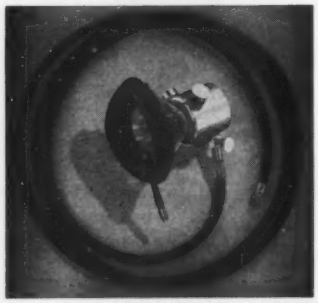

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NOVEMBER, 1957

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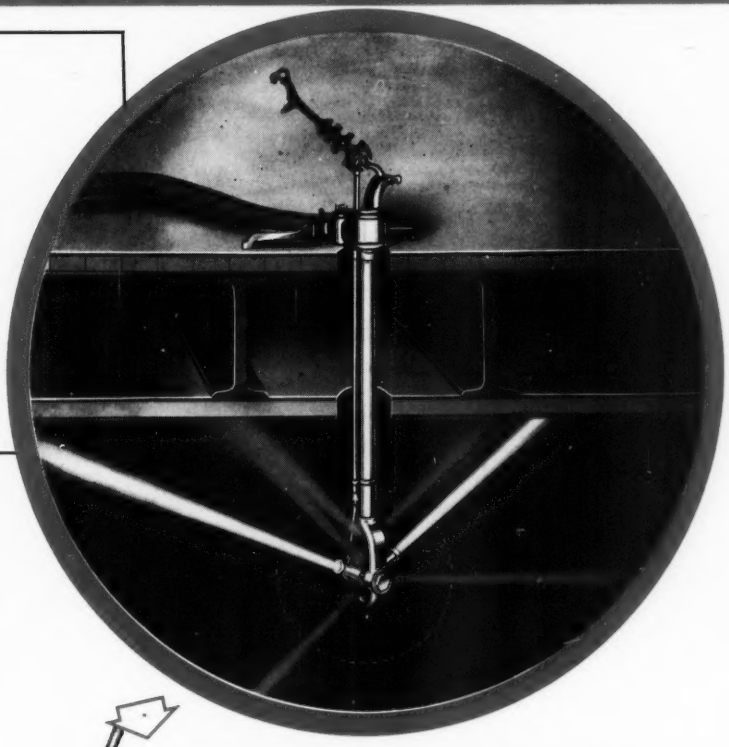

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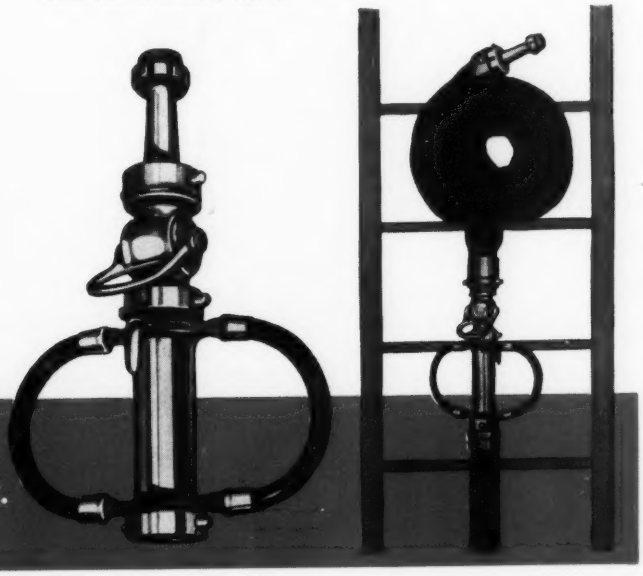

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